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A CHILD'S VOCABULARY

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Our daughter Alice's vocabulary of 2,153 words represents very nearly her actual knowledge of language; for we began at her second year to keep record of her words, and after many revisions and a comparison with a long list published in THE PEDAGOGICAL SEMINARY, we are not conscious of having missed many words that she has used intelligently. On the very first day of keeping the record we got 355. Alice was then twenty-three months old. On her second birthday the number was 455; and it grew at the rate of about 100 per month, until the twenty-seventh, twenty-eighth and twenty-ninth months, when our viligance lapsed. So that at two and a half years her vocabulary was but 1,111. We began the search with new interest and amazing success during the thirty-first, thirty-second, thirty-third and thirty-fourth months; having at that time a published child's vocabulary for comparison. On the day before her third birthday we thought we had 2,106 words; but upon recount found the correct total to be 2,153.

During the last three months we tested her knowledge of words about which we were doubtful by asking her to give their definitions, a thing she likes to do, and often asks to be given a chance to do.

We adopted Prof. Whipple's method of counting the past tense and participle forms of verbs as distinct words. However I observed that toward the last she would use the present progressive form of even the latest verb she had learned; that is she seemed to know that " ing " put on any word of action expressed a continuing of the action.

Alice knows no Mother Goose stuff. All her words are real words; and she got them all by hearing her parents use them. She is an only child; and has had very little companionship of her own age. Other development has kept pace with her mental progress. At three she is able to dress herself, except to button shoes and tie strings. She has learned more about music than we thought possible for one of her age. We attribute this to the fact that her mother has been teaching *beginners,* whose exercises, being the very simplest both to remember and reproduce, interested her as soon as she could make her fingers obey her desires. So that she not only likes to hear the heavier classics, but takes pleasure in scales, simple chords, arpeggios and simple exercises. I believe musical talent could be brought out earlier and better if the very fundamentals, the simplest forms, were heard by the child first, instead of involved harmonies.

Following are some notes we have prepared for Alice's 1912 diary, concerning her musical attainments. All of her musical knowledge she has gained by hearing her mother play or teach beginners. No attempt has ever been made to teach her anything; but of course all her questions were answered. At thirteen months she sang the first four tones of the scale alone and unprompted. At fourteen months she sang the whole scale with absolute accuracy, alone and unprompted. From the fourteenth month she could strike at once with her voice any tone sounded on the piano. At fourteen months five days, she was evidently pleased by the playing of the violin and piano by her parents. Having been told, whenever she sang a scale, what it was, she was able to sing it upon request at fifteen months two days. During the fourteenth and fifteenth months she sang various intervals, some original, some imitated, while she played with her toys. At fifteen months sixteen days she was able to sing alone the first phrase of the hymn meter "Greenville," to which her grandmother used to put the words: Bye Bye Baby. At fifteen months twenty-one days she sang the scale descending as well as ascending. About this time she learned to sing an eighth, and to identify it as an octave, often singing "oc" on the lower note and "tave" on the eighth above. Before her twentieth month she sang the *intervals* both ascending and descending,—that is, do-re, do-mi, do-fa, etc.,—using the syllable "la" for each tone.

At her twenty-first month she could sing alone seven songs (not the words, but the tune, using "la la"). They were: "Here's a Ball for Baby;" "Baby is Going to Bye-lo-Land;" "Bed in Summer;" "Greenville" (entire); "Father, we

Thank Thee for the Night;" "Clap, Clap Your Hands;" "Jesus Bids Us Shine." At twenty-third month she began sitting (for half an hour at a time) at the piano, playing scales up and down, and experimenting in striking chords which manifestly pleased her when in harmony. By twenty-fifth month she had learned both the words and the tunes of ten kindergarten songs and three other Sunday school songs; —though she'd rarely go all the way through a song at one singing. At twenty-seventh month sixth day, she struck a chord of three in the right hand and ran up and down a correct rhythm with her left. At this period she began to call the attention of her parents to pleasing (harmonious major or minor) chords when she found them. She used her own fingering; but by her third year, got a perfect legato, an accent, strong touch, always a rhythm, and the use of *all* her fingers.

Before her thirtieth month she learned by herself to start from "C" and to run the scales in thirds or sixths or octaves, on the piano. Other intervals seemed not to please her. Before her twenty-ninth month, she sang (with the syllable "la") the intervals, do, mi, sol, do; 1, 3, 5, 8; and backward: do, sol, mi, do; 8, 5, 3, 1. By her third year she knew this to be an arpeggio. Just before her third birthday she picked out by herself the first four measures (two phrases) of "Greenville," with one hand or in octaves or thirds, on the piano, using all fingers. Also, a simple Czerny study of two phrases, which she often heard played by a scholar. At this time she began to play a trill. At thirty months, if asked, "Who plays this tune?" upon hearing it, she could associate it at once with the person whom she had heard play it. She began this at twenty-five months.

Almost from the very beginning of her singing, if she found she was too low or too high for her register, she'd jump up or drop down an octave, without losing a beat, and hit the note exactly. She has the sharpest ear possible; and has never been known to sing a shadow flat or sharp.

Terms used and understood at the third year were: Arpeggio, chord, intervals, notes, octave, scale, sharps (as the black keys), thirds, trill, bass.

VOCABULARY OF ALICE HEILIG, 2153 WORDS ON HER THIRD BIRTHDAY

A	ached	afterwhile
able	aching	again
about	across	against
above	afraid	agree
ache, n	after	ah
ache, v	afternoon	air

alcohol
Alice
all
Allen
all-right
almost
alone
along
always
am
and
angel-food
animal
animal-cracker
ankle
Anna
Annie
Anita
another
answer, n
answer, v
answered
answering
anxious
any
anybody
anything
anywhere
apart
apple
applesauce
apron
are
aren't
around
arm
arpeggio
arrow-root
Arthur
as
ashamed
ashes
ask
asking
asked
asleep
asparagus
at
ate
attention
auditorium
aunt
auto
automobile
avenue
awake
away
awful

B

baby
back, n
back, adj
backwards
bad
bag
Baker
bake
baked
baking
bakedbeans
ball
Ballardvale
baloon
band, garment
band, music
bandage
bang !
bang, v
banged
bangs, hair
bank
basin
basket
bath
bathe
bathed
bathing
bathrobe
bathroom
bastingthread
bare
bark
barked
barking
bass, music
barber
bathingsuit
baseball
barn
banana
beads
beak
beans
beautiful
because
bed
bedroom
bee
been
Beetem
Beethoven
beets
before
began
begin
behave
behaved
behaving
behind
believe
bell
belong
belt
Bender
berry
beside
best
better
between
bib
big
biscuit
bite, n
bite, v
bit, n
bit, v
biting
bird
birthday
bicycle
Bible
bill
bitter
bigger
blocks
blanket
black
blackness
bless
blinds
blood
bloody
bloomers
blow
blowing
bluebird
blue
body
book
boy
boat
board
Bob
boardinghouse
boil, v
boiled
boiling
bonnet
bookcase
bones
borrow
bother, n
bother, v
bothered

bottle
bow, violin
bow, ribbon
bowed
bowing
"bow wow"
bowl
bowels
bounce
box
bow, v
bracelet
bread
breakfast
breakfastfood
brass
break
breast
breath
breathe
breathed
breathing
braid
bring
bright
bridge
brighter
broke
broken
broken-out
brooch
broom
broth
brother
Brown
brown
Brunner
brush
bunny
bump, n
bump, v
bumping
bumped
but
button, n
butter
button, v
buttoned
butterfly
buckle, n
buckle, v
buckled
bug
bun
bundle
bugle-call
budge
bunch

building, n
building, par.
burn, n
burn
burning
burned
"Bumpkin"
button-hook
'bus
busy
bush
buy
buying
burst
butcherknife
bureau
buzz
buzzing
by
by-by
Bye-lo-land

C

cabbage
cage
cake
call, cry
call, visit
call, n
called
calling
came
Campbell
camphor
camphorated
can
candle
candy
can't
cap
cart
carefully
car
carry
carrying
carried
carol
carrots
carnation
care, n
care, v
carriage
cantaloupe
card
carpet
caught
Castoria
cat

catch
catalog
caterpillar
celery
cellar
'cello
cent
ceiling
certainly
cheek
chin
chair
chicken
Charles
chamber
chain
change
chased
chase
chance
children
child
chill
chilly
chimney
chocolate
choc. blanc-mange
choke
choked
choking
choose
cheese
cherries
chest
chestnut
chew
chewed
chewing
Christmas
church
cigar
city
circle
clap
clapped
clapping
clean, adj
clean, v
cleaned
cleaning
clear
Clifford
climb
climbed
climbing
clock
cloth
clothes

clothesbasket
clothespin
clothesline
cloudy
clouds
closet
coach
coat
coated
coffee
coffee-pot
comb, n
comb, v
combed
combing
come
cocoa
color
colored
cold, n
cold, adj
collar
cook, v
cooked
cookie
cooking
cool
corner
cork
corset
corsetcover
corn
corn-flakes
cotton
cottage
cough, n
cough, v
coughed
coughing
counter
couple
count
could
cousin
cooker
Cornbau
country
cover, n
cover, v
covered
covering
couch
cow
crack, n
cracked, adj
crack, v
crayon
crazy
crawl
cradle
cranberries
cream
Cream o'-wheat
creek
creep
creeping
crib
cried
crochet
crocheting
crocheted
cross, adj
crossing
cross, n
croquet
crooked
cry, n
cry, v
crying
crumb
crust
cucumber
cuff
cunning
cup
cup-custard
curl
cute
cut
cutting
Cuticura
custard
cushion
curtain

D

dada
dark
day
daylight
daytime
dance, n
dance, v
danced
dancing
darling
dandy
Dansville
daisy
Daisy
Dante
damp
dandelion
daffodil
dark-glasses
darkness
darn, v
darned
darning
dear !
dear, adj
dead
dentist
December
definitions
desk
dessert
Deuel
did
didn't
die
died
dig
digging
dictionary
diaper
difference
dim
dimple
dinner
dining-car
dining-room
dirt
dirty
disturb
disturbed
disturbing
dishes
dive
dived
diving
do
does
doesn't
dog
doggy
doctor
doll
dollar
dolly
Donny
donkey
don't
door
doorbell
doorway
Dorothy
dose
down
downstairs
doing
drag
dragged
dragging

draught
draughty
drawer
drawers
draw
drawing
dress, n
dress, v
dressed
dressing
dressmaker
dream
dreamed
dreaming
dream, n
dried, v
drink, n
drink, v
drinking
Driesbach
drive
driving
drip
dripped
dripping
dromedary
drop
dropped
dropping
drop, n
drum, n
drum, v
drumming
drum-man
duet
dust, n
duck
dust, v
dusted
dusting
dust-rag
dusty

E

ear
eat
eagle
eating
edge
egg
Edwin
eight
eighteen
elephant
electric-light
else
elbow
eleven
elevator
empty
embroidery
embroidering
end
enjoy
enjoying
enjoyed
enema
enough
Engert
engine
envelope
errand
Esther
esquimau
ever
every
everybody
everything
everywhere
exercise
excuse
excused
extra
eye
eye-brow
eye-winker

F

face
fan
fall, n
fall, v
falling
Father
far
factory
fairy
fast, quick
fast, stuck
fasten
fastened
faster
fat
fan, v
fanned
fanning
feather
feel
feet
feeling
feed
feeding
fellow
fence
few
fell
finger
fingernail
five
fix
fixed
fixing
fire
find
finding
fireplace
figs
fish
fit, v
first
fire-fly
field
fine
firm
finish
finished
floor
flower
fly, n
fly, v
flying
flakes
flag
flaxseed
flat
flames
Florine
foot
food
four
for
forehead
Foster
fold, v
folding
fooling
folks
found
fork
forget
forgot
foodsale
football
fountain
Frances
Frank
fresh
freeze
Friday
friends
from
frog
front
Frost, Jack

frozen
full
fun
funny
fur
furnace
furniture
fuss, n
fuss, v
fussing
fussed

G

garbage
garden
garter
game
gas
gargle
gargled
gargling
gave
garret
get
getting
gelatine
girl
give
glove
glass
glasses
glue
glue, v
glued
glad
Gladys
go
going
gone
got
golf
golf-ball
golf-links
good
goodnight
gold
gosh !
good-by
golly !
gobble
grease
Grandpa
Grandma
ground
grand
grass
grip
green
green-peppers
gray
graham-gems
gravy
gracious
grapes
grape-fruit
grape-nuts
Grandfather
Grandmother
grab
grabbed
great
grow
growing
guess
gum
guimp

H

" ha-choo "
had
hair
hair-ribbon
Hal
hall
Hall
half
Hallow e'en
hamper
Hamsher
hammer
hammock
hang
hanging
hand, n
hand, v
handed
handing
handle
handkerchief
happen
happened
happy
Harold
hard
hardly
Harrington
handful
has
hat
have
having
Hawk
hay
head
hear
heard
heat, v
heavy
heating
heart
headache
he
heal
healed
heel
Heilig
Helen
hello
help
helped
helping
here
her
hers
heat, n
hide
hiding
hide-and-seek
hiccup
high
higher
high-chair
High-school
hill
him
himself
hip
hitch-up
his
hit
hitting
Hoffman
hold
holding
hole
hold, n
home
honey
hook, n
hook, v
hooked
hop, v
Hoolligan
horn
horsechestnut
horse
horrid
hospital
hospital-bath
" Hotie "
hour
house
how
hot

hotwater-bottle
" how-de-do "
hug
hugging
Humpty Dumpty
hunt
hunted
hunting
hungry
hurt
hurting
hurry
hurried
hurrying
Hymn
Hymn-book

I

I
ice
ice-cream
icy
if
improving
in
inches
indeed
ink
injection
intervals
inside
insides
invite
iron, n
iron, v
ironed
ironing
ironing-board
is
isn't
it
itself

J

Jack
Jane
Japanese
jar
jelly
Jean
Jesus
Jim
John
joke
joke, v
joking
joint
jump
jumped
juice
junket
just

K

Katherine
Katy-did
keep
keeping
Kenneth
kettle
key, piano
key, door
kiss, n
kiss, v
kissed
kissing
kitty
kindergarten
kind, adj
kind, n
king
King's Daughters
kimono
kick
kicked
kicking
kill
killed
killing
kitchen
knee
knife
knock
knocked
knocking
knot
know
knuckles

L

lace
lady
Ladies' Aid
lake
lamb
lamp
lap
late
last
laugh
laughed
laughing
laundry
laundry-man
lawn
lawn-mower
Lawrence
lazy
leg
leggins
learn
learned
learning
leave
leaving
leaf
Lebanon
lean
leaned
leaning
left, side
left, remaining
lemon
lesson
lettuce
letter, alphabet
letter, mail
let
lick
licked
licking
licorice
lid
lie
lift
lifted
lifting
light, n
light, adj
light, v
lighted
lighting
like, adj
like, v
liked
liking
line, mark
lines, reins
lily
lip
listen
listened
listening
little
live
lived
living
loaf
lock, n
lock, v
locked
locking
locket
locomotive

log
long
longer
look
looked
looking
looking-glass
lose
lost
losing
lots
loud
louder
Louise
Love, n
love, v
loved
loving
low
lower
lovely
lump
lunch
lying

M

macaroni
mad
made
magazine
Magee
Mabel
mail
mailman
Main St.
make
man
manage
many
making
mallet
Mama
mammy
mark, n
mark, v
marked
marking
market
march
Margaret
Marshall
Marian
Martha
mash, v
mashed
match
matter
matting
married
Mary
mayonnaise
me
mean
mantle
meat
measure
measured
measuring
meal
mean, adj
medicine
mend
mended
meet
met
mending
"me-ow"
mess
meeting, n
moccasin
money
moon
more
morning
move
moved
moving
Morris chair
motorcycle
mother
Mount Gretna
moving-pictures
mountain
mow
mowed
milk
milkman
milkbottle
mice
Michael
middle
middie-blouse
might
mind, v
mine
minute
Miriam
Miss
mistake
Mr.
Mrs.
mirror
mittens
mud
muddy
muff
muss, n
muss, v
mussing
mustache
mustard-plaster
music
must
my
myself

N

nail, finger
nail, metal
name
nap
napkin
nasty
nasturtium
"naturalibus"
navel
near
nearly
neck
necklace
necktie
need
needed
needle
neighborhood
nervous
nest
Nestles-food
New York
never
new
newspaper
next
nice
nicely
nick
niece
"Nig"
nightgown
nighty
night
nine
nineteen
no
nose
noise
none
not
notion
nothing
now
note, music
nurse
nursed

nut
nut-pick
nut-cracker
naughty

O

oatmeal
obey
obeyed
obeying
ocean
o'clock
octave
of
off
office
often
Oh
oil
oilcan
old
older
olive-oil
on
one
once
only
open, adj
open, v
opened
opening
organ
orange, n
orange, color
ordinary
Osteopathy
Ostrander
other
ouch
ought
our
ours
out
out-of-doors
outside
oven
over
overboard
overshoes
owl
own
oysters

P

pack, v
packing
package
"paddy"
page
pail
pain, n
pain, v
paint, n
paint, v
painted
painting
pan
Panama
panties
paper
paper-doll
pansy
parade
parlor
parade, v
party
pass
passed
passing
past
paste, n
paste, v
pasted
pat
patted
patting
patch
pattern
pavement
pay
peach
peanut
peanutbutter
pear
peas
pebble
peek-a-boo
peg
peg-board
pen, cage
pen, to write
pencil
penny
people
peppermint
pepper
perhaps
perfectly
perspiration
perspire
petticoat
Philadelphia
phonograph
piano
pick
picked
picking
picnic
picture
pie
piece
piggie-back
pile
pillow
pimple
pinch
pinched
pinching
pin-cushion
pin, n
pin, v
pinned
pinning
pine-pillow
pink
pipe
pitter-patter
Pittsburg
pity
place
plain
plant
planting
plaster
plate
play
played
playing
please
pleasant
plenty
pockets
pocketbook
potato
potato-masher
poor
poorest
point, n
point, v
pointed
pointing
pointed, adj.
pony
Polly
pond
pompon
porch
post-card
Post Office
Postum
pour
pouring
powder
prayers

pretty
"Prosit"
present, n
pretend
practise
practising
preach
press
pressed
pressing
promise
promised
print, n
print, v
printed
printing
present, here
puddle
puffed-wheat
pull
pulled
pulling
pump, n
pump, v
pumped
pumping
punch
punched
punching
punish
punished
punishing
puppies
"puris"
push
pushed
pushing
pusher
pumpkin
put
puss

Q

quack
queer
quick
quiet
quilt
quite

R

rabbit
rag
rain, n
rain, v
rained
raining
rain-drop
rail
railing
railroad
raisin
Randall
rattle, n
rattle, v
rattled
raspberry
rap
rapped
raw
Raymond
razor
reach
read, present
read, past
reading
ready
reason
really
red
refrigerator
register
remind
reminded
reminding
remember
rest, n
rest, remainder
rest, v
rested
resting
rice
rich
ride, n
ribbon
ride, v
riding
rid
right, adj.
right, adv
ring, n
ring, v
ringing
rinse
road
robe
Robert
Robelyn
rock, n
rock, v
rocking
rocked
rocking-chair
roll, n
roll, v
rolled
rolling
rolling-pin
roller-skates
rompers
roof
room
rooster
rope
rose
Ross
Rorer
rotten
round
row, n
rough
rub
rubbed
rubbing
rub, n
rug
rubber
rubbers
run
running
rummage-sale
Rupert
Russel
Ruth

S

sack
safetypin
said
sail-boat
salad
salt
same
sand
sandwich
sandal
sash
Saturday
say
saying
sauce
saucer
saw
scab
scale
scallop
scalding
scare
scared
scarfpin
scholar
scissors
scrape
scraped

scratch
scratching
scraps
screw, n
screw, v
seat
see
seem
seemed
see-saw, n
see-saw, v
see-sawing
send
sent
seven
sew
sewed
sewing
sewing, n
sewing-machine
sermon
seeds
served
seventeen
sense
set
shall
shoes
shirt
shave
shaving
shaved
shadow
shabby
sharp
sharpen
sharp, piano
shade
sham
shake
she
shell, n
shell, v
shelled
sheep
sheet
shoebuttoner
show
shower-bath
shovel, n
shovel, v
should
shouldn't
Shredded wheat
shut, adj
shut, v
shine
shining

shirt
shirtwaist
shawl
sick
side
sidewalk
silk
silver
silk-dress
silly
sing
singing
sin !
since
sip, n
sip, v
sipping
Sir
sister
sit
sitting
sitting-room
six
sixteen
skin
skip
skipping
skirt
sky
sleep
sleeping
sleepy
sleep, n
sleeve
sled
slide
slip
slipping
slippers
slop
sloppy
slow
slowly
smash
smear
smeared
smell, n
smell, v
smelling
smile, n
smile, v
smiling
smelly
smoke, n
smoke, v
smoking
smooth
snap

snapped
sneeze, n
sneeze, v
sneezed
sneezing
snow, n
snow, v
snowing
snug
snuggle
snuggled
snip, v
" snippy-nip "
so
soap
soapsuds
sofa
soft
soil, v
soiled
some
somebody
something
sometimes
somewhere
song
soldier
solo
soon
sore, n
sore, adj
Sorg
sound, n
sound, v
sounding
soup
sorry
sour
spank
spanking
spanked
speak
speaking
speck
spider
spill
spilled
spilling
spit, v
spin
spinned
splash
splinter
spool
spoon
spot
sprinkle
sprinkled

square
squeak
squeeze, n
squeeze, v
squeezed
squeezing
squirrel
Squires
stale
stand
standing
stand, endure
stay
stayed
staying
stairs
station
start, v
steam, n
steaming
steep
step, n
step, v
stepped
stepping
step-ladder
stew
stewed
stewing
stem
stick, n
stick, v
sticking
stick-to
stiff
sticky
sting
still, adj
stocking
stone
stomach
stop
stopped
story
stoop, v
stone-steps
store
stormy
stooped
strap
straight
straw
strawberries
stocking-cap
street
stretch
string
strong
Stroudsburg
stuff, n
stuff, v
stuffed
sugar
sun
Sunday
Sunday School
sugar-bowl
supper
suck
sunshine
summer
sunlight
suppose
surprise
surprised
sure
suit, n
swallow, n
swallow, v
swallowed
sweep
sweeper
sweeping
swim
swimming
sweater
sweet
sweetheart
swing, n
swing, v
swinging
switch
switched
Syracuse
spread
sparrow
still, adv

T

table
table-cloth
tail
talk, n
talk, v
talking
tall
take
taking
tan, color
"Tante"
tack, n
tack, v
tapioca
taste, n
taste, v
tasted
tassel
tea
teacher
teapot
tear, lacrimal
tear, v, rend
tea-kettle
tease
teeth
ten
tell
telling
telephone, n
telephone, v
Teddy bear
tender
tennis-ball
terribly
tea-party
terrible
thank
Thanksgiving
that
than
the
these
there
their
them
then
Theatorium
they
this
thing
thimble
"'Thias"
thirds
thirsty
think
thinking
thick
those
Thompson
thought
though
three
through
throw
throwing
thread
throat
thumb
thunder
tie
tickle
tickled
tickling
ticket

tick-tock
tight
Tilly
time
tiny
tip, point
tip, v
tipped
tin
tired
to
toast
to-day
toes
toe-nails
together
toilet
to-morrow
Tompkins
tomato
tongue
tobacco
too
took
tooth
tooth-brush
top, toy
top, summit
tore
torn
touch
touched
touching
towel
tower
town
toys
track
train
tray
tree
trick
tried
trip
trill, n
trolley
trousers
trimming
trouble
try
trying
try-on
trunk
tub
tube
tuck
tucked
tucking
Tuesday
tulip
tumble
tumbled
tumbler
tunnel
tune
turkey
turn
turned
turning
turn-up
turn, n
turnip
turpentine
turtle
two
twice
twelve
twist, v
twisted
twist, n
twins
twenty
typewriter
typewrite, v
typewriting

U

umbrella
uncle
undress
under
unbuckle
understand
unbutton
unbuttoned
unbuttoning
untie
untied
up
up-side-down
upstairs
"upsy-daisy"
us
use
used
using

V

vacuum-cleaner
valentine
veil
very
visit, n
visit, v
visiting
violet
violin
vinegar
voice

W

wagon
water
wash
want
wanted
walk, n
walk, v
walked
walking
washed
washing
wall
wait
waited
waiting
warm
wakened
wake-up
waist
wabble
waste
wasted
wasting
waste-basket
Washington
wash-rag
was
watch, n
watch, v
watched
watching
watermelon
way, path
way, method
wave
waved
wax
we
wee
weak
weather
Weaton
wear
wearing
week
weeds
Weidman
weight
weighed
well, adv
well, n
welcome
went

were
wet
what
wheat
wheel
where
when
whenever
whistle, n
whistle, v
whistled
whistling
white
whip, v
whipped
whipping
whine
whined
whining
whisper
whispered
whispering
which
whiskers
whoa
who
whole-wheat
whoopingcough
while
will
wipe
wiped
wiping
wind
windy
wind, v
winding
wide
window
Will
witch-hazel
wiggle
wiggled
wiggly
wish
without
wink
winked
winking
withered
wider
wicket
wing
winter
wild
with
worm
woman
woodshed
won't
work
word
Wood
worse
world
worry
wonderful
wonder
wood
worn-out
would
woolen
write
writing
writing, n
wring
wrist
wrong
wrong-side-out
wrinkled

Y

yard
years
yellow
yes
yesterday
yet
you
your
yourself
Yochum
young

Totals

A.	76
B.	194
C.	187
D.	120
E.	42
F.	97
G.	63
H.	112
I.	24
J.	18
K.	34
L.	98
M.	99
N.	51
O.	46
P.	161
Q.	6
R.	93
S.	299
T.	160
U.	19
V.	11
W.	132
Y.	11
	2153

THE SUPREME IMPORTANCE OF READING

By John Cotton Dana, Newark, New Jersey

Men's brains have probably not improved in size and quality in the past 5,000 years. The social, economic, political, scientific and artistic life of the civilizations of Egypt, Assyria, Greece, and Rome, seem to have been as complex, broad, and full, in all essential matters, as our own. Individual men played their parts in those civilizations as readily, as easily and as completely as they do in ours to-day.

Before history disclosed this fact, the study of the method of human development had indicated that history must in due course bring it to light. It had shown that improvement of the brain, the physical basis of mind, has always been dependent on the continuance of physical and intellectual conflict, hand-to-hand and brain-to-brain conflict, between man and man; and that when that conflict ceased to be continuous, tense and to the bitter end, then the stronger brains, housed in the stronger bodies, were no longer the brains which survived, and improvement ceased.

The average man, then, has been of the same mental capacity since before the days of the pyramids. Exceptional conditions, as in the palmy days of Athens, have bred a few exceptional men. But always nature has soon again established the ancient average, her golden mean of mediocrity.

The men of Egypt, Persia, Greece and Rome, each group with the same intellectual powers, each, that is, with mechanical and chemical instruments of thought of almost identical efficiency, faced in due course their respective periods of national dominance and prosperity, and, also in due course, showed themselves to be all alike incapable of acquiring sufficient social efficiency to carry them successfully through the complex life which their brief day of dominion and wealth thrust upon them.

Shall we fail in the same way and for the same reason? or is there, in this our civilization, any factor not found in its predecessors, which may enable us to meet successfully the tremendous problems and temptations which dominance and accompanying wealth always bring to a people? And, if there is such a factor, is it the printing press?

When I name the printing press as a factor in civilization I mean, of course, the habit of reading; and when I say habit

of reading, I mean the habit which is quite steadily growing in all civilized countries of using print to gain acquaintance with the great mass of human thought, experience, study and imagination.

This mass of what for the sake of brevity we group under the one word knowledge, has become very great and mounts up with marvelous rapidity. That it has become thus large and accumulates thus rapidly is chiefly due to the existence of the printing press.

Under oral tradition, when things were handed down by memory and speech only, the sum of knowledge was small. The invention of writing increased this sum very considerably. The invention of printing, however, increased it so greatly and so greatly accelerated its rate of increase that both the mass already on hand and the yearly, even hourly, additions to it can hardly be placed in the same class with the knowledge and the growth of knowledge before Gutenberg's day.

Out of this fact, out of the presence in this our own civilization of what has been aptly called an encyclopædic evolution, arises another question.

Evolution, with its survival of the more fit and the resulting improvement of the species, seems to have ceased to operate on the human race, so far at least as increase of intellectual power is concerned, before history began. We have been at our best for full 200 generations. During this long period we have failed again and again to cope successfully with the evils national success has brought in its train. We have never had to aid us in one of these crises the habit of reading; and here, perhaps, lies our salvation in the next struggle of civilization for permanence.

But, we now discover that the same invention which brought us the habit of reading has aroused to more active operation an encyclopædic evolution, an accumulation of knowledge, vast beyond all the conceptions of our predecessors. Will it, with its marvelous rapidity of growth, soon be so vast that the race which created it will be submerged by it? Is the printing press. with the monstrous body of knowledge it has permitted us to gather and now compels us daily enormously to enlarge, is this to be our Frankenstein?

It is perhaps not absurd to say, in reply, that print will overwhelm us,—unless we learn to master it. That is, our civilization faces a possible shipwreck on the sea of learning. The suggestion is not without some foundation. Whatever basis of fact it may possess supplements and augments the force of a truth too familiar to need more than merest men-

tion,—the increasing value to men in every walk in life of the ability to take from the printed page those facts, arguments, theories and imaginings that can help him in his calling. The farmer, the bricklayer, the student of the remotest specialty in medicine and the merchant of coals or of fresh figs, all can gather from print that which will help them to find, to be and to do.

Now, it is of the essence of society's progress that its units become more efficient each in its way. No one thing can to-day contribute so much to the efficiency of each unit as can the habit of using print to learn what others have learned. Other things may contribute somewhat to this efficiency; reading can contribute most. All advocates of education have made that statement the very foundation of their faith. It means that books are the prime tools of learning; that a library is the most important of all laboratories, and that high reading power in our native tongue is the most valuable of all the acquisitions that the schools can give.

Do we need the sciences? Yes, but the mother tongue and power to read it first, for it is our language that makes us human, and to increase our skill in this is to broaden us first into citizens of our country and finally into citizens of the world.

Do we need manual, industrial, technical, vocational training? Yes; but reading first, for reading opens windows through which we can see life and learn of good and evil and become fitted for social needs.

Do we need other languages? Yes; but first our own; and the others chiefly that they may strengthen our grasp on our own. Opponents of the classics are continually forgetting that, while the arts and the sciences they advocate as the tools of training have to do with what they call tangible, practical things, the classics, rightly taught, strengthen our hold on that fundamental thing, language, by which alone thought, reason, generalization, and perhaps even consciousness itself, are made possible.

Returning to our argument. Another familiar fact that helps to make the habit of reading of supreme importance should be noted. Two things seem to be essential to the continuance of what, for lack of better words we call civilization or progress,—plasticity and peace. Of all the factors that make for plasticity with us none is as potent as the printed page. He who reads knows—and he who knows neither fears nor hates the new in manners, morals or invention; and neither hates nor fears the stranger however wonderful his features or however barbarous his customs. And communion

with the printed page gives us more than anything else can give of those knowledges which bring other peoples to our very doors, teaches us to know them and then to sympathize with them, and so makes it impossible for us to hate them or fight them. Print has done many harmful things; but when we condemn the weak novel, the nickel library and the yellow journal, we may well remember that they are continually bringing letters to Caliban; that in the long run print is forever promoting that learning which is the foster-mother of peace.

We probably read more than any other nation; but we read very little. By reading is here meant not simply reading with understanding things which call for some thought; but just reading of words, however simple, and about things however trivial. The casual skimming of our lightest dailies, even this is done by a much smaller proportion of our population than is commonly supposed. The most popular of our weeklies and monthlies have each a circulation of less than a million and a half. A few thousand read books of wisdom; a few hundred thousand read books and journals of learning; a few millions out of our ninety millions read books and journals of minor information and of meagre imagination; and of the remaining many millions only a few read even the headlines of the most trifling journals.

Scarcely one in fifty of all the 50,000,000 possible readers of the country ever bought a copy of the most popular novel; not more than three or four in fifty ever looked at a copy of the most widely read of recent novels. Proceed to books of some importance, such as Eliot's "More Money for the Public Schools," and James's "Pragmatism," and you find that only a few thousand out of the fifty million ever read them and scarcely a hundred thousand ever looked at them. Yet these are books of the kind which, in the conceit of our universal culture, we suppose every person of intelligence to be familiar with. All the readers of the very few first rate literary journals we support probably number less than 100,000.

A consideration of the history of reading and of the character of the human brain shows us why the art is acquired so slowly, and in practice is so laborious that most people, even a majority of school-taught people, try to avoid it.

Reading is a new art. It was acquired by very few up to the invention of printing. A hundred years ago it was practiced by a very small proportion of civilized men. Speech, on the other hand, is a very ancient art, going back to the days when daily conflict to the death was selecting for survival the physical and mental superiors and permitting them

only to propagate. Speech, not silence, was then golden. It was a weapon by which success was won. The inevitable happened. As ages went by those in whose brains speech centers were best developed lived to hand on to offspring that peculiar excellence. Skill in hearing and interpreting speech went with skill in speaking. As a result we find that to-day every normal human being is born with well-defined and cunningly related centers for speech and hearing in his brain. These centers are native to us; they are part of our humanity.

And now, after countless centuries of practice in the use of these centers and of the organs to which they relate, we invent the art of printing, and ask our brains to take in through the eye the symbols of sounds. The sounds themselves our mental machinery, after ages of practice, can handle readily with an apparatus which inheritance gives us. The visual symbols of sounds, these nature has never provided us with cerebral tools to handle.

The result is that when we read, our eyes transmit the printed words to a visual center in the brain; thence they pass to the hearing center; there they are transmuted into the sounds they stand for, and at last are understood. The word-seeing tract is not native to us as is the word-hearing tract; we must, each new generation of us, develop it anew by long practice. The path from the word-seeing to the word-hearing center is not given us by nature, and we must compel the visual symbols of sound to travel it countless times before they travel it with ease! A few, we find, have a divine gift for reading; a few others, without the gift, have the wish and the will to persist in practice until they read with ease and pleasure. The rest of mankind never acquire the art save in a crude and halting way; and of them all only a few ever have power and patience to learn to read other than simple and trivial things. This line of argument is familiar enough and is cited only to justify the conclusion that we are not a nation of readers!

Several interesting phenomena strengthen the line of reasoning just given. Children, when learning to read, pronounce the words they see that the sounds of them may reach the word-hearing center directly, through the ear, instead of by the new and difficult route in the brain, from the word-seeing center to the word-hearing center. Poor readers mumble the words they are reading, that the speaking center may help its ancient ally the hearing center to transmute the visual symbols of words into sounds of words. All readers, perhaps without exception, find if they observe themselves closely that as they read silently they pronounce in their minds the words they

see. This silent pronunciation takes time, demands a certain effort, and only after long practice ceases to be a burden. The long practice is what the schools should induce and lamentably fail to induce.

One or two other familiar facts are worth citing. The political spell-binder finds to his delight that the people who read with difficulty can listen with ease and pleasure. They take in without trouble, and without permitting thought to disturb the pleasure of absorption, the flapdoodle of his oratory; they read with effort and reluctantly, if at all, the careful arguments of the student and the philosopher. Hence the royal oratorical progress across our country of our highest public servants.

Even the more intelligent often prefer the spoken to the written word. Among all the methods of acquiring knowledge of things worth while, listening to the formal lecture is probably the poorest. If one takes note of those among whom this method of learning is most popular one finds they are almost invariably non-readers.

The advocates of story-telling and instruction by lecture cite the facts just mentioned to prove the admitted fact that the ear is the natural gateway to the mind and especially to the seat of reason; and then conclude that much instruction should be given through the ears. This conclusion is confuted by the very facts they cite, for if nature developed in us a good word-hearing mechanism thousands of years ago, why waste time now in giving it needless practice? Moreover, if skill in reading daily increases in importance through the swift growth of our overwhelming mass of knowledge, and if that knowledge can be mastered a hundred fold more rapidly by reading than by hearing, it is far more imperative that the art of silent reading be taught than the art of listening.

To sum up: we have no more mental power than our predecessors had who built civilizations and then let them fall into ruins. Print may be the new factor which will save our civilization. Print is so rapidly promoting encyclopædic evolution that our learning may overpass our powers of generalization and application. To prevent this we must become a race of skillful print-users. It is of supreme importance, therefore, that we learn to read. At present we read little because the art is one for which our brains do not inherit the apparatus.

THE DECLINE OF THE CLASSICS AND THEIR PLACE IN FUTURE CURRICULA

By John A. Magni

Every careful observer must admit a marked decrease of interest in the classics both in Europe and in the United States. Whoever visits the Greek and Latin classes in secondary and higher institutions of learning is struck by their smallness and is forced to confess that these subjects have lost much of their former prestige. Movements in some parts of our country, for instance California, with a view to the reconstruction of all schools under state control, entirely eliminating the classics, is a significant sign of the times. Many hail it with unmixed joy as a proof that our age is truly progressive. But what it really proves is, that human advancement is not in a steady, straight line, but zigzags, and now and then retrogresses at certain points. Human vision from various causes grows dim at times, fails to recognize and appreciate real advantages and culture values already attained.

Now then, what is the chief cause of this changed attitude towards disciplines once looked upon as the very *sine qua non* of a sound, thorough and well-rounded education? The answer is quite simple. Man is at heart a utilitarian. Our age more than any previous one has called forth and emphasized this characteristic. Hence it follows that education must now serve some direct and immediately useful end. Whether with Prof. O'Shea we define education as adjustment to one's social environment, with Prof. Bagley and ex-Pres. Eliot as social efficiency, or with the American farmer and business man as a means for getting bread and butter, or making money and becoming rich quickly, the conception of education as essentially a material and temporal matter, is perfectly clear. The agricultural colleges, the industrial and trade schools, business colleges and schools of domestic arts, etc., that are springing up everywhere tell the same story. Some of us may try to persuade ourselves by all sorts of arguments that the old cultural ideals in education are still vital and in full force among educators and the masses of the people. Let us not deceive ourselves. If we look existing facts fairly and squarely in the face, estimate

and appraise actual concrete social conditions as well as emotional and mental attitudes in this matter, we shall be forced to admit, though with regret, that the eternal is at a heavy discount in our day. Modern man may be said to re-enact Brahma's night experience. This great world-spirit, according to the ancient Hindoo philosopher, having once withdrawn into a mathematical point, i.e., a pure timeless, spaceless spirit, which to him was equivalent to day, light, and self-sufficiency, "desired to go abroad," and therefore expanded into the infinite atomism of time and space and thus went through a long period, *kalpa,* of unconsciousness, night and chaos. To-day man directs all his attention to the spatial and temporal, devotes all his energy to the conquest of matter, forgets, and even seriously doubts any other form of existence. The result is night, chaos and confusion in his mind, both regarding ideals of education and of life. Truth has vanished, only opinion remains. "The chain of workings set up by an opinion is that opinion's truth, falsehood or irrelevancy as the case may be," is the late Prof. Wm. James' definition of truth. Unquestionably modern man, owing to the ineluctable Zeitgeist, has become too infatuated with the sense side of life, because it is so tangible, and appears supremely real.

It is reasonable to assume that future writers of the history of education will refer to this onesidedness as an aberration of the human mind, a lack of perspective and balance. For just as Brahma returns from his state of self-externalization into the pure incandescent light of his own perfected spiritual selfhood, so for man a day will dawn with clearer light and larger spiritual perspective, he will come to himself. Education has two sides, or a double meaning. Says C. H. Henderson: "It is the outward visible result of an inner experience or it is the movement of the inner experience itself. . . . The outer aspect of education is knowledge, the inner aspect is development." The present exclusive emphasis of the outer or material aspect of education, however, is natural and inevitable. A trained scientist knows full well that science has nothing to say on human destiny, or first principles, she deals solely with appearances. It is metaphysics that attempts to discover the cause or underlying reality of cosmic becoming, but natural science declares all such attempts utterly futile, and is resigned either to a blank nescience or annihilation. Recall, for example, the views of Spencer and Clifford, the latter of whom had this tragic record inscribed on his tomb: "I was, I loved, I am not." Man is rooted in and entirely limited by his capacities, they

tell us, to time, space and sense. They also insist that all beings exist under these forms, i.e., the real universe is purely objective. But they seem to forget that such a universe is the result of pure speculation, without a vestige of experience. A universe entirely apart from human consciousness, or a percipient ego, is a thing, or rather, insane brain-spook, of which absolutely nothing can be predicated. The idealist, on the other hand, whose world-conception rests on pure experience, although he frankly admits that his consciousness is chiefly made up of feelings and emotions, nevertheless recognizes a small fraction of his psychic content as of an essentially different nature, viz., reason or intellect. Now, this divine capacity makes him an apologist of a suprasensible world and an endless life. The very mystery of consciousness and personality, its ceaseless irrepressible quest of ultimate reality, of meaning in the flux and flow of things and the never-flagging pursuit of the highest perfection in goodness, truth and beauty, are to him irrefutable proofs of his own immortality. And so he devoutly believes in higher attainments and a grander destiny for man than that of earth, and revolts against every attempt to reduce man's personality to dust and "fortuitous atoms." But the ear of our age is deaf to the protest, growing daily fainter, and the divine discontent does not move its heart, indifferent to all otherworldliness. Wherever there is a genuine striving, a real desire for powers and possessions not of the earth earthy, it is merely a dark feeble groping, lacking conscious and scientific guidance.

Now, since the universal tendency of man's nature to-day is not inward as for instance during the middle ages, but outward, whose aim can only be conceived in terms of space and time and social effects, we are not at all surprised at the present aim in education. "Education is wrapped up in the philosophic idea quite as completely as propositions of geometry are wrapped up in the initial axioms," says C. H. Henderson. The prevalent world-conception to-day is in its essence a materialistic monism with a slight varnish of idealism. Natural science dealing entirely with objective reality has wrought this radical change. Psychology has reduced the soul or human personality to a "shadow-man superimposed on the psycho-physical organism." Pragmatism, an outgrowth of modern psychological prying, and the all-dominating spirit of commercial usefulness, finds no cosmic unity, no permanency in the eternal flux of things, no static truth, and ends logically in unconditioned and absolute scepticism. This philosophic idea is to-day more popular and more widely

diffused than many suppose, in fact, it is an unreasoned, unconscious world- or life-concept with many, even educated people, who never studied pragmatism technically so-called. Is it any wonder, then, that man is really and practically nothing but a money and wealth-producing machine? In a time of breakneck speed to accumulate wealth and the ferocious greed for money that sets aside conscience, outrages humanity, and reduces man to a mere tool for profit-making, can we expect studies to flourish that by their very nature only enlarge, heighten and sharpen man's capacities for enjoying the true, the beautiful, and the good in nature and art? Fads and dilettanteism in these things are quite sufficient for all commercial purposes—deep, broad, genuine culture, requiring much time and money is, as a rule, neither eagerly sought nor highly appreciated in our age of bread-and-butter philosophy. Look at the toiling millions of our land who by hard labor eke out a meager living, but are entirely ignorant of the higher things of the spirit, the boundless treasures of ancient and modern literature and art; then scrutinize their employers, the plutocrats and multimillionaires, often snobs or dilettanti, innocent of that deep genuine culture which lifted ancient Athens into that unrivalled, exalted position from which she has never been dislodged. Are our material prosperity and achievements anything to be permanently proud of in such a state of things? No, we need a deeper, saner philosophic idea as the educational *nisus formativus* of human society, or future man will point a finger of scorn at our imagined greatness and boasted superiority. This idea is contained in that profound and eternally true evaluation of human personality made 1900 years ago by the great and peerless teacher and appraiser of moral values, the prophet of Nazareth. Until human personality is in fact and in deed regarded as of such transcendent worth that all the riches of the earth, yes the whole world, pale and dwindle into insignificance in comparison, all educators will be bunglers, and their work vain. The notion that man is a tool, a means for sordid, perishable gain and profit must be abandoned, and his true dignity restored by recognizing him as an end in himself as taught by Jesus and Kant. The sooner our educators fully realize this, the better for our schools and our country.

Since education has become simply a means for the production of material wealth and bodily comfort none need be surprised at the rapid disintegration of the cultural ideals cherished by our fathers and entrusted by them to an educational system for further propagation. However absurd

many in this age of material progress may think it, there are numerous evidences for the truth of the assertion that there is a decided retrogression and deterioration in education, a trend towards superficiality and incompleteness, a marked waning and decay of sound, genuine, thorough soul-culture. Let us mention but a few of these evidences. The passing of the classics is striking evidence and very significant, another is the influence of wealth at our colleges and universities. Here the classic genuineness, and democratic simplicity of olden times are rapidly vanishing; the sideshows already overshadow the main work, as Woodrow Wilson pointed out while at Princeton. Our higher institutions of learning are being transformed into social clearing houses for social preferment and success, rather than cherished as seats sacred to intellectual achievements, culture and the building of character. Says Owen Johnson in *Collier's Magazine:* "A force within it (the college) has grown, solidified itself, assumed control and imposed its standards of success, which are in direct opposition to the standards of intellectual pre-eminence." A third is the employment of so many women as teachers (more than ¾ of our teachers are women), and often for purely business reasons, simply because they cost less. This is a grave error. It is really too bad that our educators and school boards fail to see that a human being during the plastic and formative period should also be partly at least under the virile influence of man. A fourth is the preference for young immature men and women too often with but a very meager education, instead of mature and middle aged persons with ripe judgment, deep and broad erudition, and superior training. Such errors and lack of sound pedagogical judgment constitute a deplorable turn in our western education. These and many more facts could be adduced to show the same basic trend in American life, and as long as it dominates, purely cultural subjects, like the classics, deep and serious study of literature will receive but slight emphasis in our curricula.

In the midst of all these hurried attempts at educational reconstruction would it not be wise to stop and seriously consider whether this intense desire to break entirely with the classic past is not, to a certain extent at least, retrogression instead of advance? A careful sympathetic study of the causes and the esthetic motives that led the men of the Renaissance to give the classics the prominent place in their educational program might enable us to perceive in them a permanently intrinsic educational value. Our medieval colleagues exaggerated this to be sure but their enthusiasm was

far from baseless. It is true, they saw in the recently discovered ancient literature a scientific value that we of course must reject, but their interpretation of its esthetic and cultural aspect is in the main sound. The freshness of feeling, the intimacy and oneness with an unspoiled, unanalyzed and mysterious nature, the spontaneity and naïveté, as well as depth, clearness and originality of thought, the unsurpassed richness, beauty and plasticity of form revealed by the classics, charmed and inspired with boundless hopes such men as Dante, Petrarch, "the first modern man," Erasmus, the greatest classicist of his age, Reuchlin, Melanchthon, the *praeceptor Germaniae,* Johannes Sturm, Goethe, et al. This attitude was perfectly natural in an age whose ideal was vast erudition and deep culture for its own sake, irrespective of practical results. This unreserved abandon to and absolute identification with the *inner* essence and aspect of education seem to the modern educator positively vicious, a fatal negation of practical efficiency, yes, modern man is totally averse to this conception of education. Must we then conclude that with us wisdom began, and that these ancient *savants* lacked all insight on this point, and merely indulged in inane vagaries? Yes, perhaps if life is not more than meat and body more than raiment, if the Lucretian solution of existence, viz., "the fortuitous concourse of atoms," or, "when death is, we are not," is to be the universal verdict of future humanity—but this final and definite verdict has not yet been rendered! Still if the possible transcendental value of education should, for a time, lose its grip on the human soul, education will not degenerate into a bald bread-and-butter philosophy, but it can be confidently predicted that the emphasis on its purely inner or cultural aspect, now reduced to an almost negligible minimum, will be greatly increased in a not very distant future. A deep conviction will again prevail that education is not merely a means for securing temporal and objective ends, but just as much a method of self-realization, self-unfoldment, a higher, richer and deeper consciousness. It is also certain that idealism, already maintaining itself for more than 2,000 years, and being greatly enriched and reinforced by modern philosophic and, especially epistemological researches, will deepen this conviction as the ages pass. It will also be apperceived more and more clearly that the time can never arrive when personality shall have yielded up its last vestige of mystery and thus stand forth as a naked analyzed object, i.e., its transcendental nature can never be definitely disproved. Therefore there will always

be ground for the belief or hypothesis that education, training and experience in time, may be of timeless, inestimable value.

By recalling to mind the reasons why the classics were esteemed so highly by the medieval and early educators and the social conditions that gave Latin, for instance, such a firm footing, we shall be better able to understand why they are now looked upon as superannuated and useless. First, they were supposed to be the best guide in the interpretation of nature. This was especially true of Greek. Modern science was not yet born, and Aristotle, the great polymath and master in natural science, had not yet been relegated to the lumber-garret by Francis Bacon and Galileo. Second, they were looked upon as unsurpassed means for mental training and higher culture. Third, Greek soon acquired great importance for theological and ecclesiastical purposes, since the New Testament and many of the patriotic fathers were written in this language. Fourth, Latin was the language of diplomacy, the vehicle of thought, written and spoken, of the higher classes and educated people, as well as the sacred organ of the dominant Catholic Church. Under such conditions it was perfectly natural for a Johannes Sturm to inaugurate an almost exclusively Latin curriculum in his famous Gymnasium, founded at Strassburg in 1537, after which the humanistic Gymnasium in modern Germany is patterned.

At present none of these social conditions exist. Hence when by the end of the seventeenth century they ceased, one reason for their retention in the curriculum, although tacitly accepted all through the period of their most assiduous cultivation and fairest bloom, was then especially emphasized. This was the famous doctrine of their disciplinary value. This fact, then, strengthened the habitual attitude of respect and love for classic learning during a period of more than three hundred years, and gave them a new lease of life lasting down to our own day. This reinforced habitual attitude towards the classics is unquestionably the chief reason why they have played such a prominent part in school curricula during the last two hundred years. In our day various economic forces have counteracted, modified and broken this neural momentum. For it can no longer be doubted that an habitual emotional attitude toward an object, as long as it is undisturbed, gives this object its human or economic value. This explains also the *raîson d'être* of those "deep-seated errors on which almost all abuses are founded, the servile worship of eminent men and the irrational dread of innovation." This certainly is true of the majority of human

beings. For those individuals are exceedingly rare of whom it can be said as of the dispassionate and clear-headed Spinoza that their virtues are of the type called "dianoetic" by Aristotle, those where thought takes the lead and the will follows. A purified intellect, however, seeing the truth in its own incandescent light uncolored by feelings and passions, must be universally recognized as the protagonist in human affairs before the societies and nations of the earth can emerge from their present chaotic and barbarous state. Modern psychology has clearly revealed the extraordinary significance of man's emotional life, the tremendous power of neural habit. It is in modern thought the inexorable *fatum* of the ancients, the *vis minima* of natural science.

The grip of the classics on education for the last two or three hundred years is not due to a clear apprehension of their intrinsic superiority over other disciplines. Man has never directed his actions upon pure reason and clearly apprehended truth. The emotions, the passions, continually eclipse the idea that repeatedly may occupy the focus of consciousness. Taking truth in this narrower concrete and psychological sense of an individual, consciously focalized concept, we can easily see why it has not been embodied in social institutions. We can also understand why modern psychology declares conscious choice of evil an impossibility, thus coinciding with the Socratic dictum that knowledge and virtue are identical. Most men choose what, at the moment of choice, seems best, because their consciousness is colored by individual selfish feelings which are not attuned to the objective ethico-esthetic world-process making for universal human excellence and human wealth. Were this not so, the world to-day would be very different from what it actually is—a paradise wherein would now dwell righteousness, justice, peace and happiness. But the cold fact is, that neural habit, or emotion, constitutes the most elemental and determinative force in the entire animate creation, the psychic *nisus formativus* which has held and still holds man in its fate-like grip. Conscious-logical thought, which transcends blindly groping and slowly plodding nature, because it is a thing absolutely *sui generis* in being self-transcendent and therefore anticipates the unconscious processes of nature by thousands of years, stands almost helpless in the presence of this formidable agency in its cosmic sweep. This accounts for the exasperatingly slow ethical progress of human society. The beast of the primordial jungle holds it back. Truths and ideals sufficient to transform earth into heaven were clearly apperceived and made known more than two thousand years

ago by some rare deep and far-seeing souls. But man is so completely engrossed in the temporal salvation of his own little tin-pot soul, and his intellect so darkened by sense that he utterly fails even to glimpse that human life of perfection and ideality which lies within his grasp and power of realization. Self-centeredness instead of a world-wide self, identifying itself with all, greed for things of sense, lust for power, exploit, dwarf and enslave all humanity. Whoever with an open and unbiased mind observes and studies men and women in all walks of life to-day must frankly confess that the almighty dollar is the supreme object of their love and devotion. Economic conditions and the all-dominant capitalistic spirit of our age have clipped the wings of idealism and placed a heavy, sordid and earthy hand on the human spirit.

Education, which above everything else should be a ministering angel of man's ideal and spiritual wants, is too much under this same earth-bound spell. Says C. H. Henderson: "We make a fetish of the public school with its cheap information and shopkeeping accomplishments, but we have not yet conceived of human life as a moral and esthetic revelation of the universe, and of education as the practical process of entering into this tremendous possession." Instead of giving the child a truly cultural, i.e., organic training, permitting it to live a full, free, natural life, in growing to assimilate the best in human culture, we subject it to a veritable hot-house education. Childhood and youth, which are as much ends in themselves as mature life and old age, should be normally and completely enjoyed if we would attain the true social purpose, a symmetrical, harmonious and complete human personality. This end can only be reached through spontaneous activity fraught with joy and interest. How far we are from this ideal every unprejudiced observer knows very well. The reason is plain, it is the mercenary spirit, the business aims controlling and reducing everything to business standards, business evaluation, in brief, to a money-making machinery. Even the much lauded craze and demand for specialism is a movement away from genuine culture; for it fosters a narrow and comparatively barren life. The average, and frequently the best, specialist is better suited to do research work than to serve as an inspiring guide for young ardent souls in the lovely fields of beauty and goodness, or on the delectable mountains of truth and large spiritual vision. We need what Pres. Butler said a few years ago, "broad men sharpened to a point," yes, more, we need teachers, "with warm human hearts beating with high moral, social and artistic purpose, not operatives in the factory of instruction."

Another reason for the passing of the classics is found in the recent results of experimental pedagogy. Already Aristotle had divided the human mind into so-called faculties. This was the beginning of psychological atomism. The human soul was conceived as consisting of a hierarchy of powers or capacities working independently of each other. Thus judgment, reason, memory, attention, cognition, perception, apperception, etc., arose. This splitting-up of the mind's original unity was the conception that prevailed during the middle ages and down to our own day. It was in this time-honored doctrine that the lovers and ardent admirers of the classics found a strong support. The different faculties, they reasoned, can and ought to be properly trained. In this way the doctrine of formal discipline came to the fore, though tacitly accepted all through the Renaissance and Humanistic movements. The classics were believed to furnish a general training superior to that of any other subjects, and for this reason they were assiduously cultivated. "You can do better work as a farmer if you learn Greek and Latin," the writer was told by college chapel orators while as a student he struggled to master the speech of the great Greeks and Romans. Many things have been said so often that by mere dint of repetition we have come to believe in them as truths, and it never occurred to us that they might be either false or only partly true. It is only a rigid experimental test that can give us the truth in many fields.

Formal discipline may be defined as denoting a training which results in a general increase of mental power independent of the subject matter and thus enabling the student to master the new and unexpected. In other words, it claims to cultivate a general power of conscious, self-directed learning, thinking and reasoning. Now, quite a number of experimentalists have attacked this problem very seriously during the last few decades. Among these may be mentioned Volkmann, Profs. Wm. James, Thorndike, Woodworth, Bagley, Taylor, Coover and Angell, et al. An account of these experiments is not necessary in this article since access to the originals is easy, or to the good resumé of them in Professor E. N. Henderson's text-book on "The Principles of Education," or the one in Heck's "Mental Discipline and Educational Values." We find that all these experiments when rightly interpreted fail to prove the spread of the effects of special training, and the conclusion at which these experimenters arrive is that there is no development of a general mental ability by any specific training apart from the establishment of definite associations. Prof. Henderson is

convinced that, "subjects should not be chosen for their formal discipline alone. Training in method is most economical and most effective when it is given in connection with content the mastery of which is in itself valuable."

Unless future experimental data greatly modify present results, it is clear that the old classic conception of formal discipline was fundamentally wrong, viz. that certain subjects apart from a specific content will increase the student's mental power and efficiency. We are also forced to conclude that no particular subjects are superior as means of this specific mental training. To be sure, observation shows that educated people as a rule can better meet and adapt themselves to a new situation than the uneducated. But it is perfectly reasonable to suppose that the former excel both as students and later in practical life by sheer innate or inherited ability, rather than because of the pursuance of certain studies.

The term mental or formal discipline, however, is still retained by psychologists, but modified to mean "training in those methods of treatment that are adapted to what might be called the form of a situation." Formal discipline, then, is specific and involves definite stimuli and definite responses, or in other words, the function of formal discipline is merely the cultivation of certain attitudes, the necessary concomitants of definite mental and motor adjustments.

If these conclusions are correct, can we as lovers of the classics maintain our position? Can we save what we consider a precious heritage left us by the ancient Greeks and Romans to our children and to coming ages? If, as a specific disciplinary agency the classics are merely on a par with the modern and more *useful* subjects in the curriculum, can it be proved that the classics are really indispensable? Or must we join the extreme educators in their vehement hue and cry against these useless, antiquated studies that still encumber the curriculum and retard human progress? If it can be shown that beside the specific disciplinary value which they possess in common with the modern sciences, languages and literatures, they also have an intrinsic worth peculiarly their own, i.e., that they give us something not to be procured elsewhere, then the classics are justified.

An unbiased mind should be convinced after due reflection, that the present opposition to the classics is not well founded and, hence can only be temporary. It is evidently due to two things, (1) the extreme materialistic and utilitarian spirit of the present age, (2) to ignorance of classic literature, art philosophy and philology, a lack of deep, prolonged and thorough study of these subjects. And this deplorable ignor-

ance on the part of educators must be attributed either to lack of time, incentive, ability for such study, or to an innate emotional bias and distaste, and, *de gustibus non disputandum est.* But for these very reasons the opposition can, in the nature of things, only be a passing one. Such individual factors do not ultimately determine the general trend of human growth and progress. If you are an idealist, you will apperceive a deeper, inner, shall we say, ethico-rational, *nisus* determining, in the last analysis, human and social evolution. This may smack of mysticism. But as Prof. Robinson of Columbia University says, " Even those of us who have little taste for mysticism have to recognize a mysterious unconscious impulse which appears to be a concomitant of natural order." Bergson calls it *l'elan vital,* and Prof. Creighton, the universal functioning in the particular.

Classic antiquity created both a form and content value that modern society cannot ignore without impoverishing itself. It is indeed doubtful whether any sane and thoughtful educator, who has taken pains to look into the matter, can deny that, as a means of training the power of attention, accuracy and the memory for details, the classics have no superiors. Now, such a mental efficiency, even if it cannot be directly transferred to an incongruous field of mental activity, as Prof. Hinsdale pointed out in a paper before the N. E. A. at Asbury Park in 1894, and as has been corroborated by later experiments already mentioned, still is valuable as an ideal as Prof. Bagley has well said. Furthermore, will not the richness, the marvelous differentiation of thought as it is mirrored in the Greek language strike the student as a revelation? Nor can too great emphasis be laid on the clearer understanding, the firmer grasp and deeper appreciation of the English vernacular resulting from a study of the classics. Furthermore, what shall we say about the new and deeper insight into the world of beauty and art? A few striking examples will suffice. Dante, who created a work which, despite its medieval spirit, content and cosmogony, has survived the ravages and vicissitudes of time for six centuries, frankly acknowledges Vergil as his master and guide. It would be difficult to imagine the nature of the " Divina Commedia " without its classic inspiration. And what about Milton's sublime sacred epic if the Hellenic spirit were not intimately fused with the Hebraic? It is this that makes John Milton a poet for the world and for all times. Again, Goethe, the greatest genius and intellect Germany and modern times has produced, looked upon his sojourn in Italy, 1786-88, amidst the glorious remnants of classic art, as a real

new birth into the kingdom of beauty. So profound and genuine was this experience in direct contact with the noble efflorescence of the Greek genius that it transformed his literary art. Have our rabid classic iconoclasts of to-day ever sufficiently pondered this significant event in the history of literature? But aside from these formal excellencies the genuine teacher of the classics is fully convinced that as a cultural content study they are second to none. Once thoroughly imbued with the best in Greek and Roman thought he will heartily scorn the purely utilitarian view of life which, as we all know, is now blindly worshipped by the majority of men.

Still despite this retrogressive move in our civilization, the loyal disciple of the immortal masters of thought and art among the ancient Greeks and Romans preserves his equanimity and remains true to the never-surpassed, the never-aging Greek maxim, μηδὲν ἄγαν. He knows full well that when our western culture is older, our thought-life maturer, our consciousness deeper and intellectual vision clearer, then our youthful fancies and vagaries will appear in their true light—the pendulum will return. Our opponents admit even now, that if we would fully understand and appreciate modern civilization, society, laws, arts and institutions, we must go back to ancient Greece and Rome. Reflect on this fact for a moment, you who are a utilitarian dyed-in-the-wool, you who claim to have no time to acquire this deeper classic knowledge and insight and insist, in season and out of season, on social, practical efficiency, remember also that, everything else being equal, the man with a perfect comprehensive grasp of the constitutive elements and principles of art, philosophy, pedagogy, religion, ethics, politics of our modern life as rooted in the past, is unquestionably a safer guide and leader than the dilettant conversant only with the modern fraction of human experience. To be sure, a standing excuse for not studying Greek and Latin is that these remarkable civilizations can be studied without wasting so much time in learning these dead and difficult languages. This trite objection is only a half-truth. For in the first place, if we would get at primitive, outgrown ideas in order to discover how many are still alive or lead a galvanized existence in our modern society, we must study the ancient languages themselves, because in the original word or its root the primitive idea will often lie hidden. It is the analytical linguist fortified by psychological training and insight who recognizes these Ibsenian ghosts from a hoary past, while the ordinary man takes them for red-blooded living realities. What a mental

house-cleaning such a study would bring about in social ethics, politics, religion, etc.!

But besides this truly social purpose of classic studies and that which has hitherto been the chief aim, viz., the cultivation of the finest esthetic taste, the classics should also be studied with the specific end in view of throwing light on the childhood of our race by digging down into its phyletic roots. For by a deeper insight into the childhood of the race we can better understand and so deal more wisely with the budding infantile soul to-day. The classics have not yet been studied in the light of genetic psychology and primitive culture with the degree of seriousness the subject really demands. Let training in this new science be combined with that in philology, and valuable results are sure to follow. But in the second place we should bear in mind that no translation, even the very best, can take the place of the original. This is absolutely true of the great masterpieces of the world. Says F. W. H. Myers: "No words that man can any more set side by side can ever affect the mind again like some of the great passages of Homer. For in them it seems as if all that makes life precious were in the act of being created at once and together—language itself and the first emotions, and the unconscionable charm of song . . . what words can express the sense which we receive of an effortless and absolute sublimity, the feeling of morning freshness and elemental power, the delight which is to all other intellectual delights what youth is to all other joys? And what a language! . . . There never has been, there never will be a language like the dead Greek. For Greek had all the merits of other tongues without their accompanying defects. It had the monumental weight and brevity of the Latin without its rigid unmanageability; the copiousness and flexibility of the German without its heavy commonness and guttural superfluity, the pellucidity of the French without its jejuneness, the force and reality of the English without its structureless comminution." And Lord Macaulay has this to say of the Iliad and the Odyssey: "Those two strange old poems, the wonder of ninety generations, still retain all their freshness. They still command the veneration of minds enriched by the literature of many nations and ages. They are still, even in wretched translations, the delight of schoolboys. Having survived ten thousand capricious fashions, having seen successive codes of criticism become obsolete, they still remain to us, immortal with the immortality of truth, the same when perused in the study of an English scholar, as when they were first chanted at the banquets of the Ionian princes."

Some one may retort that these are the words of enthusiasts, extravagant adulations of antiquity because it has been in fashion so long, as for instance Madison Cawein, the American nature poet thinks. And yet, is it not remarkable that, ever since the rediscovery of the classics in the thirteenth and fourteenth centuries, men of the finest intellect, the most highly developed esthetic taste and thoroughly grounded in classic lore, have been similarly affected, from Dante down to our own day. Of the moderns, Goethe is a case in point. But listen to Tennyson, the greatest English poet of the nineteenth century, in his exquisite tribute to the Mantuan bard on the nineteen hundredth anniversary of his death, a tribute so full of sweet music, genuine feeling, and fine appreciation:

"Roman Vergil thou that singest Illion's lofty temples robed in fire,
Ilion falling, Rome arising, wars and filial faith and Dido's pyre;
Landscape lover, lord of language, more than he that sang the Works and Days,
All the chosen coin of fancy flashing out from many a golden phrase," etc.

And although he drew only indirectly an immense amount of material and inspiration from classic sources, what would our own peerless Shakespeare be without them? Libraries have been written on the ancient literary masters, and those who have drunk deeply from the Pierian spring need not be told why, Lord Macaulay, whose splendid command of English and forceful, lucid style are admired by all his readers, used to read Greek and Roman authors on his journeys to India and other places for the exquisite enjoyment and intellectual benefit derived from them. Milton's compositions, he thinks, should be studied by every man "who desires to become acquainted with the full power of the English language." As for Milton's lyric poetry, every reader knows that it exercises an irresistible fascination by its intense feeling, exquisite beauty and sublimity. The reason is clear, his essentially lyric muse received her nourishment and inspiration from the native fountain-head of lyric song, the Greek. "He was a profound and elegant classical scholar."

Now suppose our education were such that the best classics supplanted the carloads of cheap, worthless trash, offered the traveling American public as mental pabulum at all railroad newsstands. Does any one doubt that such a revolution in the moral and esthetic taste of our people would be a desirable thing? A demand for the best in the English vernacular would follow "as the night the day." Why is it that taste for classic and high class literature, especially

dramatic and lyric, is keener, correcter, and more widely diffused among the different classes in Germany and France than in the United States? Because for centuries past the classics have set the esthetic standard in those countries. The work, in Germany, of such men as Martin Opitz, Winckelmann, Lessing, Goethe and Schiller and classic scholars too numerous to mention, and in France, Boileau, Molière, Corneille, Racine, Voltaire and a host of others, has left a profound and indelible impression. For the esthetic education of the German and French peoples these men performed a service of inestimable value despite all the dead, stiff formalism and unnatural correctness that must be laid at their door. French literary art began with the organization of the literary language by Boileau and the Academy. Victor Hugo, the climax in French literary art, walks in the ways of his predecessors. In Hernani, Corneille is visible. Boileau, Corneille, and Racine, drew their inspiration chiefly from Horace, Vergil, Seneca, but Fénélon appreciated and appropriated the best Greek writings. Before beginning his Télémaque he translated six books of the Odyssey in order to saturate himself with the style. To illustrate this point let us take the two great masterpieces, Faust and Hamlet. The two possess a fundamental kinship, both are tragedies of thought, and there is as much deep reflection as interest-sustaining action in either. In Germany every billiard marker puzzles himself over Faust. "Students earnestly wrestling with doubt," says Lewes, "striving to solve the solemn riddles of life, feel their pulses strangely agitated by this poem." Such a deep, widespread and lively interest in Shakespeare's masterpiece does not exist among Americans. Does not this fact show that our literary and esthetic education is not serious and thorough enough? Higher esthetic standards must continually be set before our young people, and more persistent, enthusiastic efforts made to interpret to them the noblest works of classic art whether literary or plastic.

As for France it is a well known fact that as a vehicle of literary art the French language is unsurpassed in modern times. An unbiased student will also recognize that much of its superiority is due to the severe and serious work of the French classicist during the golden age of French literature. It is also a fact that these superior qualities, beauty, elegance, lucidity, etc., of the French language have affected the speech of the lower classes and become an unconscious possession. Years ago the writer learned that many a French fishwife, for instance, when called into court, had astonished the judge and lawyers by the elegant and forceful language

in which she was able to couch her thoughts. The Frenchman's love of dramatic art of a high order is so well known that it scarcely needs mention.

In order to show more clearly that a translation will not serve as a substitute for an intimate knowledge of the classics themselves, an illustration from nearer home will suffice. No one who has so mastered German, for instance, that he can feel and think with Goethe in reading, or better, living and acting on the stage his immortal Faust drama, will for a moment, admit that any or even the best translation will do just as well. A piece of real art can be most effective; reveal itself in its unique, inimitable beauty, charm, and emotionally overmastering power only through that immediacy which is the artist's own possession. The vernacular is the most subtle, the most spiritual and perfect medium of the soul's self-expression. "The deeper and more complex parts of human nature can be exhibited by means of words alone," says Macaulay. A genius of the first order is an incarnated epitome of his race, and his deepest experiences are at once the most intimate, original, permanent and universal. But their content when separated from their original form, loses more or less of its beauty, plasticity and captivating virtue. in a word, its unique spiritual aroma. A flower transplanted from one soil or climate to another does not remain the same. A Dante scholar has said that it is worth while to master Italian for the sole purpose of reading the Divine Comedy in the original.

Since the above was penned the writer has come upon some passages in G. H. Lewes' book, "The Life and Works of Goethe," which are in such perfect accord with his own view that he cannot refrain from quoting the words of this eminent and careful scholar. Speaking with reference to Faust's sad soliloquy of despair which follows Wagner's exit, he says: "The thoughts and the music in which they are uttered, must be sought in the original, no translation can be adequate." This is also applicable to a large portion of this unique production, which is at once a problem and a picture of human life. When Mr. Lewes first read Faust (in a translation) he says he was disappointed and thought that Goethe "had missed his aim." But he adds: "As I grew older, and began to read Faust in the original (helped by the dictionary), its glory gradually dawned upon my mind. It is now one of those works which exercise a fascination to be compared only to the minute and inexhaustible love we feel for those long dear to us, every expression having a peculiar and, by association quite mystic influence." Again,

referring to Charles Lamb's singularly unfavorable opinion of Faust he declares it "an opinion he never could have formed had he read Faust in the original. He read it in a translation, and no work suffers more from translation." The same is true of Coleridge. Again and again Mr. Lewes protests against "the adequacy of all translation of poetry," and declares it at best only an approximation and never "an adequate reproduction of the original." The cause of this, he shows, "lies deep in the nature of poetry." He lays great stress on the music of poetry and quotes Beethoven's statement that: "Melody gives a sensuous existence to poetry; for does not the meaning of a poem become embodied in melody?" Then he also points out that in a general way a translator can reproduce the meanings of a poem and of its individual words but not the music, the form, "nor those precise shades of suggestiveness on which the delicacy and beauty of the original depend." The reason he assigns is simple, "in a poem meaning and form are as indissoluble as soul and body." The application of all this to the peerless Greek, as previously discussed, is self-evident.

Closely related to the above argument is another that has not received the emphasis and attention it deserves. We all know the value of coming into direct touch and intimate relation with a great and noble soul, because our own individual lives are thereby enlarged and ennobled, in brief, we gradually make his qualities our own. Now the acquisition of a foreign language is equivalent to direct communion with a larger personality than that of any human individual, for it embodies and reflects the soul, the emotional and intellectual life, of a certain nation. It is therefore a wise saying of Cicero, often quoted but little heeded, viz., that he who learns a new language acquires a new soul.

Furthermore, as previously intimated, the classics could be made a valuable source by the student of genetic psychology and primitive culture. Here is still a vast amount of unutilized animistic lore, to be obtained by a study of the sentence, the word and its root in the original, which might be used to elucidate human childhood. Pres. G. Stanley Hall, whose keen and versatile mind has for years been engrossed in the study of psychogenesis, recognizes an urgent need of research along this line. If education is to progress instead of becoming stagnant and sterile, a mere recapitulation of the past, as in China for 2,000 years, and finally failing in its great maieutic task of bringing to birth new ideas which promote social rejuvenescence and perfection, the educator must dig deep down into the soul of our common humanity. Pope's

well-known saying, "The proper study of mankind is man," is a never-aging truth, but the reverse is equally true; the two are reciprocal. The individual intellect by tracing its history in that of the race will gradually become the purified and spotless mirror of nature. It is a very old subject but forever new, fresh and rich. In its inexhaustibility lies its never-palling charm and fascination as well as in man's endless perfectibility. Self-knowledge must precede real progress, because it secures all knowledge. History continuously proves its individual and racial essentiality. Had the scientific as well as prescientific and religious doctrine of monogenesis been known and practiced in ancient India, the crime against so many millions of men, viz., the caste system with all its dire and degrading consequences, would never have existed. The ridiculous spectacle of the strutting, arrogant and self-important Brahman imagining himself sprung from the head of Brahma, and the Sudra supposed to be the lowly offspring of his feet and therefore wedded to a life of earth and dirt, would never have disgraced the annals of man. Had educators known and heeded the doctrine that the child, during its prenatal and postnatal development, mirrors the age-long evolution of the race, it would never have been treated like an adult, but its instruction suited to the successive stages of growth, and the schoolhouse would never have been degraded so often during all these long, weary centuries to a place of loathing, terror and torments.

We have certainly advanced during the last hundred years, but we are still primitive and crude in our knowledge and treatment of the child. An imperative desideratum in our education is that the teacher possess both a Pestalozzian sympathy with, intuitive insight into the child's nature, and intense love for his profession, and also a thorough psychological training. All teachers should be thus equipped, and there would be no waning of interest in any subject, nor would there be any question of eliminating any of the old well-tried branches from the curriculum. A classicist well versed in psychology, pedagogy, primitive culture and philosophy would make the classic page glow with new light and interest. How far we are from this ideal is too painfully evident. As a people we do not love and reverence learning and culture—"there's the rub!" Teaching is not a crystalized well-defined profession whose members are known and appreciated everywhere for their great learning and deep culture. Consequently the vast majority of American teachers are social zeroes in their respective communities. We have been groping and experimenting and the children and

the youth have been the victims of our bungling efforts. Well, how can we expect a young woman of eighteen or twenty, or even older, innocent of these higher qualifications that lend a unique force, charm and inspiration to the learning process, and who only looks upon teaching as a makeshift till she finds something more remunerative or gets married, to infuse vitality into the ancient author and make him live and breathe as a human being? As long as the teacher is not a complete living and loving embodiment of Greek or Latin, whose every nerve tingles with emotion and anxiety to impart that classic life of beauty and truth, so long these studies will grow deader and dustier until they are dropped in disgust.

However, we have good reason for believing that the deeper insight, the greater interest, the broader and more genuine sympathy for everything human, created by science, will also revitalize the classics. Science especially in co-operation with many other human interests, will ultimately unite all humanity past, present and future, into one vital, organic whole, every part of which will then be recognized as absolutely essential and hence will enlist future man's keenest interest as contributing to the fullest and richest fruition of life. In that day education will be under the best and strictest scientific guidance. Teachers will then be persons of erudition, deep culture, and native intuition, and most important of all, expert child psychologists respected and recognized as the most valuable servants of the state. Then every child will be carefully tested in well equipped psychological clinics, to ascertain its strongest instinctive capacities. Students who have no taste, love and ability for mastering literature, and are unable in their turn to become creative and productive in this field, will not be forced "like dumb driven cattle" through an extended literary course. In that day of clearer pedagogical vision, the brick-mason, the carpenter, the farmer, i.e., individuals best fitted by nature for these occupations, will not study Homer, Plato, Sophocles, nor Vergil, Cicero and Horace in the original. Why should we induce, or even allow so many undeveloped youth whose intensely practical, matter-of-fact minds care nothing for primitive thought and culture, who have no ear for the music of the classic writers, to spend so many weary profitless hours in such studies?

Last year the writer asked his students in Vergil the following question: What profit have you derived so far from your study of Vergil? One answer ran in part thus: "Modern literature is full of classical allusions which one must

understand in order to gain the full force of that literature. The study of Vergil has made known to me a few of these myths. I cannot honestly say that the poem has any literary attraction for me. The construction is so complex demanding deep concentration of thought, I arise, after a siege of hours, with the same feeling which filled me when I had conquered a knotty proposition in geometry. I like the brain exercise, but I never find entrancing beauty and inspiring thought."

What an immeasurable distance between the attitude of our English poet Tennyson towards Vergil, who loved him since his day began, and that of this student! Can we honently persuade ourselves that a student to whom the form, feelings, spirit and thought of Vergil are so foreign and unattractive really *must* go to him for *brain exercise,* especially in our day when there are a thousand and one subjects to choose from of which Vergil never dreamed, subjects both practical, cultural, disciplinary and, last but not least, intensely interesting to this type of students? Even if we admit formal discipline for the sake of argument, why insist on these students studying the classics? The truth is sun-clear that education cannot create, but only bring out and make actual what is from the first potentially contained in the soul.

Two essential reasons why the modern college is not efficient, nor achieves its very best are: (1) that too many young persons are enrolled as students whom old mother nature did not give student brains, and these only hinder the work and encumber the ground of higher culture; and (2), owing to a wrong educational doctrine, too many students are permitted, and even induced, to pursue studies for which nature endowed them with rather meager or no capacity. This defect in our educational system should be remedied.

While waiting for this brighter, more perfect, but still distant day in education, the writer foresees a decline in classic and cultural studies properly so called. In the meantime there will be comparatively few who will seriously cultivate these branches and thus bring to complete unfoldment the perfect humanity, intended for many more by the Great Mother. These few who then keep the classic torch burning will consist: (1) of the deeper creative minds in art, literature and philosophy, who glimpse and ardently love eternal beauty and truth, the permanent, the ever valuable and worthy as it is mirrored in the spatial and temporal flux of things; these will be the real harbingers of the future superman,—Plato's beautiful harmonious personality, not at all Nietzsche's

titanic monster with its absolute disregard of all human standards of mortality, even the most ideal; (2) of the merely recipient minds, the awakened and eminently esthetic souls who sincerely and earnestly desire to enjoy, and, in a measure, reproduce and re-experience the noblest and choicest fruits of human civilization.

ANCIENT VS. MODERN LANGUAGES AS A PREPARATION FOR ENGLISH

By Ralph H. McKee, University of Maine

One of the most persistently pushed reasons for requiring a knowledge of Latin for entrance to college is that an ancient language, particularly Latin, aids a student to acquire the ability to read, write and speak English better than does a modern language or the study of any other subject; this claim being based partly on the supposed close relation of Latin to English and partly on the supposition that the ancient languages are better taught than the modern.

In an examination of the dependence of quality of work in college upon the courses taken in the preparatory school, data bearing upon the above reason for requiring Latin for entrance to college were obtained. If this claim were true, then the student who had, in the high school, three years of Latin ought to receive higher grades in English in college than the student who had three years of a modern language or one year of Latin and two years of a modern language. These data were obtained from the records of the last three classes (1910, 1911 and 1912) graduated from the University of Maine. This institution has an advantage for such an investigation in that only two languages, Latin and French, are customarily taught in the preparatory schools tributary to it and also because all students, candidates for a degree, receive the same training in English in the freshman and sophomore years. After eliminating those whose entrance records were not available owing to their having entered with advanced standing, or as "specials," or for other reasons, and also eliminating those who did not complete a semester of college work, the records were tabulated in relation to the amount of language and its character and the grades obtained in English. In addition there has been included a column giving the average of all grades obtained by the student in all courses taken as an undergraduate.

Entrance Units of Foreign Language.	Number of Students.	General Average.	Average English Grade.
0 Years.	12	77.80	77.20
2 Years			
2 M.	71	78.05	75.40
3 Years			
a. 2 A 1 M.	4	83.55	72.80
b. 1 A 2 M.	26	79.51	78.80
c. 3 M.	12	81.57	82.02
3.5 Years			
1.5 A 2 M.....	4	79.92	77.64
4 Years			
a. 4 A.	8	79.72	76.68
b. 2 A 2 M.	49	79.43	80.39
c. 1 A 3 M.	15	81.26	81.10
d. 4 M.	20	78.99	77.05
5 Years			
a. 3 A 2 M.	26	81.28	79.54
b. 2 A 3 M.	17	80.03	79.64
5.5 Years			
3.5 A 2 M.....	9	82.62	80.40
6 Years			
a. 4 A 2 M.	48	81.45	81.28
b. 3 A 3 M.	13	80.09	75.44
c. 2 A 4 M.	9	81.68	81.43
7 Years			
7 A.	10	81.50	79.34
8 Years			
4 A 4 M.....	6	88.15	87.74
9 Years			
7 A 2 M.....	7	86.76	86.06

"A" indicates ancient language, "M" modern language. Groups of less than four students were not considered. Modern language in the above is generally French though it includes 57 students who presented one to three years of German. Students with Greek, with the exception of one student, presented three years of that language. They constitute the groups presenting seven and nine years of foreign language. Students with no foreign language entered with conditions, students with more than six years language have almost all presented entrance units in excess of the number needed for full entrance.

If Latin were better than a modern language as a training for English then in each series the group "a" would have higher grades than the group "b" and group "b" than group "c." Exactly the reverse is found to be the fact and we must conclude that the advantage, if any, is slight and is in favor of the modern language. A slight increase in the quality of work in English as the total amount of foreign language training increases is also to be noticed.

The conclusions here reached agree with those of a similar

investigation[1] made four years ago using a somewhat smaller number of students at Lake Forest University where the languages taken in the preparatory school were generally Latin and German, showing such differences as existed in their effect on the student's English to be in favor of German.

It is recognized that these facts tend to destroy a belief that is tender to many, but, like the belief in witchcraft or that potatoes grow best when planted in the dark of the moon this superstition that everything of scholastic value, including the ability to read, write and speak English, is dependent on the study of Latin seems destined to disappear. Latin deserves the attention of students but only on the same basis as other languages, an idea at variance with the custom of many eastern and southern institutions of requiring Latin as a prerequisite to the student's entrance upon a college course.

A study of the third column in the above table discloses that the students, who as a class enter without conditions and with no surplus of entrance credits, show in the quality of their general work no appreciable variation dependent on the amount of foreign language taken in the preparatory school. In other words, so far as preparation for work in college is concerned, it matters not whether the student in the preparatory school takes a large or a small part of his work in foreign languages, a conclusion in happy accord with the latest report to the National Educational Association of its committee on college entrance requirements.

[1] *The Popular Science Monthly* for October, 1909.

A STUDY OF PROFESSIONAL WORK AS PRESENTED IN THE STATE NORMAL SCHOOLS OF THE UNITED STATES

By W. H. Sanders, State Normal School, La Crosse, Wisconsin

Data upon which this discussion is based were obtained by a questionnaire sent to all the state normal schools in the United States. The various normal school presidents selected faculty members who were most competent to furnish the information. Eighty-one of the hundred sixty-two schools located in forty different states representing all sections of our country are included in the study. The questionnaire called for information on five topics:

I. Professional Work Preceding Practice.
II. Observation.
III. Practice.
IV. Lesson Plans.
V. Effect of Practice Teaching on the Training School.

Lack of space necessitates the omission of data and limits discussion.

I Professional Work Preceding Practice

Sixty schools name Psychology as the first of the professional subjects. School Management is mentioned nine times while Special Method is named seven times as the first of professional subjects studied. We find Psychology taught in sixty-eight different schools; Pedagogy in sixteen; History of Education in twenty-eight; General Method in thirty-eight; Child Study in ten; Principles of Education in six; Principles of Teaching in seven; School Management in twenty-seven and Special Method in thirty-three. The total number of times that the remaining eleven subjects in the list are mentioned, varies from one to four, while two report no professional work preceding Practice.

If we study the subject "Psychology," which holds so large a place in so many schools in the training of teachers, some very interesting facts may be observed. In the first place the content of the courses in Psychology in the different schools as indicated by the text in use presents remarkable

contrasts. A reading of the original reports also shows that in some schools stress is placed on Elementary Psychology, in others on Advanced Psychology, while Educational Psychology, Genetic Psychology and General Psychology are emphasized in others. Again in nineteen schools one hundred hours or more are given to the study of this subject; in thirteen schools between seventy-five and one hundred hours are given to Psychology; twenty-eight schools give between fifty and seventy-five hours; eight schools give less than fifty hours, while eleven are not reported as studying the subject at all. Furthermore, if we consider the number of hours given to the study of Psychology in the different schools as compared with the total number of hours study given to all professional work before Practice, we see what great importance some schools attach to Psychology as a factor in the making of a teacher, and that many other schools consider it as having but little or no value in this regard. In a word a student of these facts is impressed with the variety of views held by the different normal schools in what at first appears a substantial agreement. Certain it is that one interested in the training of teachers can not contemplate the diversity of procedure in the normal schools without feeling strongly that the problem involved in the question, "How much and what psychology is necessary in the training of teachers?" is, to put it mildly, in the experimental stage.

Other sharp contrasts may be noted in the work given before Practice in the various schools. While sixteen schools regard Pedagogy as essential, sixty-three do not; twenty-eight schools regard History of Education as essential, fifty-one do not give it at all; thirty-eight schools give General Method, forty-one do not; ten have a course in Child Study, sixty-nine do not; twenty-three schools regard School Management as essential, while forty-six do not; and thirty-three schools give courses in Special Methods, while forty-six do not. Are we to regard these extreme variations as due to conscious experimentation on the part of our state normal schools with a purpose to determine what are the essentials in the professional training of teachers? Or is it true that each state or each school under the direction of its president or board of control is proceeding along lines of its own choice, not taking into account the accumulated experiences of efficient normal schools in this and other nations? One school gives one hundred fifty-six hours to Psychology, one hundred fifty-six hours to General Method, one hundred fifty-six hours to School Management and seventy-eight hours to History of Education—a total of 546 hours. Another gives

forty-seven hours to Psychology, sixty-six hours to General Method, sixty hours to School Management, and forty hours to History of Education—a total of 213 hours. Still another gives no attention to any of these subjects. If each of these schools is turning out efficient teachers we are forced to ask anew "What professional work, if any, is essential to the preparation of students to become teachers? If we regard the normal schools as being engaged in experimentation with courses of study it is pertinent to ask if the experiments are being carried on so as to furnish data that are sufficiently accurate to serve as a basis for the construction of courses along scientific lines.

II. Observation

In all save two of the schools reporting, Observation has a place though the extent to which it is used and the function it serves vary greatly. The number of hours (periods) ranges from none to two hundred with but few schools agreeing in the amount of time given to the subject. We find in some schools it is required for a given number of consecutive weeks, five periods per week, or it may be for one, two or three periods per week; again students are required to elect it before Practice or it is arranged irregularly, and in some instances it depends upon the "student's program." Generally speaking, Observation both precedes and accompanies Practice. In some schools it is carried on in connection with Psychology; in others it is a part of the course in Pedagogy, General Method or Special Methods. In one school it is arranged for by heads of departments; in another by the supervisor of practice, while in another, the critic teacher provides for it. The data above show that there is no consensus of opinion as to the functions of Observation in a normal school.

III. Practice

The number of weeks given to Practice varies from six to eighty. As a rule five periods per week are given to Practice Teaching, though a few schools give a half day or a whole day to the work. Multiplying the number of periods per week by the number of weeks given to Practice in the different schools, we may observe the following facts: Three schools offer fewer than fifty opportunities to teach; fourteen, from sixty to ninety; twenty-one, from one hundred to one hundred fifty; nineteen, from one hundred sixty to two hundred; and six from two hundred seventy to four hundred. Or, to put this variation in the amount of time given to Prac-

tice in another way, we may note that the following numbers represent the difference in opportunities offered to teach in the different normal schools: 30-45-60-65-66-72-80-85-90-100-105-120-125-130-135-144-150-160-180-190-195-200-270-285-300-400. The ratio of the largest number of opportunities to teach to the smallest number is approximately thirteen to one.

Using the data before us as a basis, let us ask what theory as regards the place or function of Practice Teaching is held by the state normal schools? It has been said that two theories as to the place of Practice Teaching are prevalent in normal schools. One group holds that it is the function of the school to give the student teacher an extended experience in teaching; the other contends that sufficient practice should be given to exemplify and vitalize educational theory. The data here submitted do not seem to support either of these contentions. The number of opportunities given student teachers to teach varies by irregular gradations from a minimum of 30 to a maximum of 400. This would seem to indicate that a variety of theories is held not differing materially from the number of normal schools represented in this investigation. To state the conclusion in another way, the data indicate the absence of any recognized standard theory as to the amount and function of Practice in our normal schools.

The supervisor of practice, the critic teacher and the student teachers are very generally expected to be present when a student is teaching. Occasionally the department head observes those teaching subjects in his department. In some of the reports a vigorous protest is made against the custom of allowing student teachers to observe other students teach. Since it is, in many schools, the custom to have the supervisor of practice teach classes in the normal school and since the critic teacher often sections her grades for student teachers, an interesting bit of information not called for in the questionnaire would be the proportion of time the student teaches unobserved. Hints here and there in this investigation show a pronounced sentiment against unobserved practice, especially in beginning practice.

One of the criticisms made on the normal school graduate is that he has had his practice under abnormal conditions. A point frequently urged is that the student does his practice with a small group of children and in a recitation room apart from other children at study. Out of a total of seventy-one schools, thirteen require their student teachers to teach in the presence of classes engaged in study; twenty-seven schools use the recitation room; and thirty-one schools allow the

student teachers to use a recitation room at the beginning of Practice but later require the teaching to be done in the assembly room. The presence of the recitation room may be due to preference for this plan in some instances, but in many places it is accounted for because of a desire to increase the practice facilities—to provide more practice even though under abnormal conditions—beyond what might be available in the rooms presided over by critic teachers. The relative worth of much teaching done under very abnormal conditions with only occasional supervision, as compared with less teaching done under conditions more nearly normal and close supervision, is worthy of careful study. Since Practice Teaching at best is artificial, done under conditions not ordinarily found in public schools, would it not be well to make this part of the student's preparation for teaching conform as nearly to actual school room conditions as possible?

IV. The Lesson Plan

Eighty out of the eighty-one schools furnishing data use a written lesson plan. Fifty-seven out of a total of seventy-two schools follow a definite form of plan which is practically the same for all subjects and for all grades. Summarizing the essential points in a lesson plan as indicated by the different schools we have a total of forty-one. The number of "essential" points varies in the different schools from one to seven. The fifty-seven schools that use a definite form of plan show extreme variations as to what constitute the "essentials" of the plan. This difference of opinion raises the question as to what are the really "essential" points in a lesson plan. Is it advisable to leave the "essential" points to individual supervisors or critics as reported by some schools? Does the absence of agreement in any school on "essentials" encourage individuality as indicated by other schools? If the lesson plan hampers worthy individual activity should not the entire scheme be abandoned? The almost universal use of the written lesson plan in normal schools indicates that it has a place in the training of teachers, but the data show that the lesson plan has not had the careful consideration necessary to make it yield its highest service.

The query relative to the psychological processes taking place in the minds of the pupils in mastering problems had for its purpose (a) to ascertain to what extent normal schools seek to make the teachers in training conscious of the actual thinking which their children must do and (b) to find out whether this activity of the pupils is indicated explicitly in the plans. Almost every conceivable variety of opinion was expressed

on this question, ranging from strong commendation to vigorous condemnation of the idea that the processes should be shown. The answers are extremely interesting and incidentally throw a flood of light on our ideals of what constitute efficient training of teachers. I quote two replies as showing extreme views: "We do not know of any psychological processes", and "The supervisor ought to know that the teacher understands the processes the child performs in mastering the lesson. Should be in lesson plan if not told orally."

Considering the importance of the mental activity on the part of the pupils, that this is the end for which teacher and subject-matter are employed, it seems logical that this activity should be conceived clearly and stated plainly, so that a critic or supervisor might see at a glance whether subject-matter and procedure are in harmony with this end. To take the view that the mental processes of the pupils should be *implied* in the plan, that the *procedure* should reveal them, is to assume that the student teacher is clearly conscious of the processes which a well-directed question by the critic will show is often not true, and to expose the supervisor or critic to the danger and temptation to read his own thoughts into the plan rather than to ascertain the student's exact view of it. A critic teacher of experience may see implied in a line of procedure much that a student teacher of little or no experience would be wholly innocent of. It seems, to avoid doubt and uncertainty as to whether a student teacher sees the end to be accomplished, it would be well to have this definitely stated in the plan. The plan should show explicitly rather than implicitly, the activity which the teacher proposes as a result of his procedure.

Let us not be misunderstood in this discussion. It is conceded that a real teacher of experience may adjust his subject-matter and procedure *unconsciously* to the ends to be attained. But it is far different with a student teacher with no or with little experience. The contention is here that in the case of the latter he should be made to see clearly the activity to be stimulated, that this should stand in the center of consciousness, in the spot light, so to speak, and that he should consciously shape his material and procedure in harmony with this end. Habit comes from repeated conscious effort—"repetition in attention"—and if the beginning teacher is to grow into the habit of shaping his work to meet certain ends automatically or even with a low degree of consciousness it must be in accordance with the well known laws of habit. Those upon whom the burden of making lesson plans is imposed are

beginners, they are novices and need to be given right habits from the first, if they are to develop into graceful, skillful and efficient teachers through practice.

V. Effects of Practice Teaching upon the Training School

A small majority of the normal schools express the opinion that there "are no detrimental effects of practice teaching upon the training school," at least none that are not greatly mitigated, if not entirely overbalanced by "the strength of the critic teacher always present." A strong minority of the schools, however, see unmistakable evidence of deterioration when the student teachers begin their work. "Too many personalities," "too much thinking for pupils," "want of concentration," "discipline more lax," "knowledge not definite," "signs of disintegration," "continuity suffers" "unable to get as much work done as in good public school"—these are the injurious effects most frequently mentioned as arising from the work of student teachers.

Those who see evil effects of practice teaching in the model school attempt to counteract these in a variety of ways. "A strong critic teacher" "always in charge" "teaches much of the time" "especially when any deficiency appears in the pupils." "Change practice teachers frequently" "and permit no one to continue teaching if failing." "Careful supervision of plans and daily conferences of student and critic teacher in which failures are forestalled—"a careful sifting, gradation and *prerequisites* for teaching" together with "a balancing of weak and strong students" and care in "changing student teachers to grades to which the student is better adapted"—are suggested means of protecting the model school from the evils of Practice.

VI. Conclusions and Suggestions

The data show:

1. State normal schools have not grasped clearly and made effective in their curricula the thought that there is a Science of Education.

2. Under the most diverse lines of procedure in Psychology, Pedagogy, Method, Observation and Practice the normal schools believe teachers are being trained equally well.

3. Individual schools proceed along independent lines, not taking into account sufficiently the experience of this and other countries in the training of teachers.

4. There is no well established and generally accepted theory

of normal training or body of educational principles, developed in sufficient detail to be usable, according to which normal schools are working.

5. Normal schools, as a class of educational institutions, created for a distinct purpose, can not hope to escape severe criticism so long as they pursue the unscientific policy now in vogue.

6. There is among normal schools no recognized *best* way to develop a student into a teacher.

7. Courses, for example in Pedagogy, Psychology and Method, are not based upon a well wrought out and definitely organized body of ideas but upon texts in which there is the widest possible divergence in subject-matter.

8. Normal schools as a class are not living up to their highest opportunity.

9. The nomenclature used in these data (and in Pedagogical literature in general) is so loosely used, used with such a variety of content, that it is difficult to discuss educational questions even in the presence of a body of educators, so as to be clearly understood.

In view of the purpose for which state normal schools were created, in view of the divergent and opposing lines of procedure existing in them, in view of the great opportunity which they have and the enormous expense at which they are maintained, the whole matter of normal school education should be referred to a Commission of Educational Experts of such commanding ability that their conclusions would have weight and carry convictions to those who control these schools. If such a Commission would give us a clear statement of the principles underlying the Science of Education and the Art of Teaching; a carefully considered scheme of Normal School training involving the quantity, quality and order of subject-matter and the method of presenting the same; and make a thorough study of the function of the Model School and of its relation to the normal school, they would render a service worthy of the best efforts of our most able experts in the field of educational endeavor.

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PREPARATION OF TEACHERS FOR NATURE STUDY AND CIVIC BIOLOGY*

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All things considered, progress in the teaching of elementary public school biology has been phenomenal in the last ten years. Millions of boys and girls are now alive and awake to the study of birds and insects, gardens and soils, flowers, trees, weeds, corn, cotton and tomatoes, who would have been dead or asleep to all these interests under the old regime of ten years ago. Under the law of momentum and acceleration, progress in the next ten years is bound to be even better. The field is as infinite as Nature and simply teeming, abounding, bursting with knowledge and possibilities of life and education, all wholesome, all worthy and delightful, and all worth while. We are only in the dawning fringe of a new era of cleanly living and splendid good health full of beautiful homes, glorious, gorgeous and luscious gardens, teeming fields and shady roadsides, green pastures and still waters. Verily in this work is the Lord our Shepherd and we shall not want.

Nothing gave me more pleasure and genuine satisfaction in my travels of the past summer than the glimpses I got of children's gardens everywhere. The world is surely moving in the right direction. They were everywhere, roof gardens, window gardens, back-yard and front-yard gardens, school gardens, garden cities, and everywhere there were children in them, standing and looking, bending over and pointing out things to companions, gathering vegetables and flowers. Among many others, I visited the garden of one little girl in Cleveland; it occupied part of a vacant lot next door to her home and was fifty feet square. Early in August it was a mass of bloom, asters and sweet peas, lilies and roses, with wonderfully well-grown tomatoes, lettuce and other vegetables at the rear. This was the third year she had had this garden and every plant in it seemed perfect. The first year she had sold about $20 worth of flowers, plants and vegetables from her garden, the second, $60 worth, and so far this year she had actually sold $125 worth and hoped to bring the account up to the $200 mark before winter; her garden looked as if she would. Think of it! This is already at the rate of $1975. per

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acre, and if she succeeds in her ambition the yield will be at the rate of $3160. per acre—and by a slim, little slip of a girl fifteen years old. But in all the garden the finest and best crop is the knowledge, and interests, the ideas and ideals in the life of the girl herself. She was glowing and sparkling with love of her garden. She has developed strength of body and of mind, power to concentrate and patience to persist until the result is in hand, resource and ability to plan wisely and to work out the problems in her way. She has made a good start on the road to knowing how to produce her own living by fundamental and wholesome industry. No matter where her lot is cast, she will be better able to surround her home with the wholesome comforts and beauties of the garden; and what a teacher she may be in a few years.

All this progress has meant change in subject matter, growth in ideas and advance in methods on the part of teachers. A whole new field, the whole out-of-doors, has been thrust upon them to teach. It is one thing to teach the easy little lessons in the easy little printed books and quite another matter to study and learn together with the children and try to teach the big book of nature. Far too little thought has been given to this phase of our problem—teachers expected to teach children to garden who have themselves never so much as thought of planting a seed of any kind; to lead their pupils in bird study, who have never learned to tell a crow from a crocus or a hawk from a handsaw; to teach the trees, who have never been taught rightly a single common oak or maple; and to teach insects, who have never dared to look a single bug in the face. All this infinite wealth of nature dumped on them to teach, on the one side; on the other, courses and equipment, gardens and other facilities and opportunities for study at first hand in the normal schools of ten years ago, in which most of the teachers in the harness to-day received their preparation, utterly inadequate or even absolutely nil. The public is making these demands on the teachers, and nothing can be plainer than the simple, common-sense proposition that the public must supply adequate instruction and equipment for their preparation to teach.

Two propositions thus become clear at the outset. We must adequately reorganize and equip our normal schools with laboratory, greenhouse and garden facilities, properly to fit teachers of the present and future; and, of even more moment just at present, we must offer every possible help and encouragement to the teachers already out in the work. This may be done through educational journals, State nature study and biology leaflets, and really helpful, practical and inspiring lectures in institutes and the summer schools. Wisconsin has

already set the pace in its Arbor and Bird Day Annual, a model of both inspiration and instruction; a happy union of art and science. Be liberal, the subject is well worth all we can possibly afford to spend on it, even in money, and much more in life. To require bricks without straw was an outworn policy five or six thousand years ago.

Teachers cannot be prepared to teach nature study by unkindly criticism. The first thing one is likely to hear when instruction in some new field is discussed is: "The teachers don't know anything about it." And this is too often said as if they ought to know. Fortunately, nature is too infinitely vast and manifold for anyone to know it all, and the more one really knows the humbler he becomes and the more careful of the feelings of others, because he realizes how little of the whole he ever can know and how dependent on others he must always be for what they may have been able to have learned. Hence, the best preparation to teach is the humble spirit, eager to learn but free and even glad to tell another "I do not know." And why not give the pupil the pleasure of finding out and telling? Nature study reduces to instant absurdity the silly, shallow notion that the teacher ought to know everything. The sum of the knowledge of nature of all mankind, all learning, all science for thousands of years, is only a minute fraction of what remains to be discovered. If everybody knew everything, what a pretty pickle we would all be in! Nobody would have anything to tell anyone else and human society would be on a level with a bank of jolly little clams in the mud.

A friend returning from abroad told me that a well-to-do Frenchman in Paris had asked him: "Well now, is America in New York, or is New York in America?" I was perfectly delighted to hear it. How well I remember the endless, dull, deadening grind of geography in the district school—the wearisome map-making, the everlasting parrot-like telling over and over of boundaries, cities, rivers, mountains, industries and productions. That was some years ago, of course, but I've been told that it is a hundred times worse and more of it now. Oh, man is the only animal on the face of the earth that compels its offspring to learn for the pure torment of learning. From all this dull black misery of useless memory cramming just one bright star, to me a star of hope and inspiration, shines in my soul even to this day. One teacher, her name was Miss Hunt, the only teacher I ever had whom I really loved and would run my little legs off to do, fetch or find anything for, Miss Hunt told us that she *did not know the source of the Nile!* that a great many had tried to find it, but could not, that she did so wish somebody would discover

it. This was the only thrill I got from all the years of geography. It kindled my infant soul and I vowed then and there, "when I got big," I would discover the rising-place of the river Nile.

In nature all about us, however, we have thousands of things of more vital interest to us than the discovery of the sources of the Nile. Why not tell our children that we wish they would find them out and give us all they are able to discover? This attitude and spirit would mean the very breath of life to our whole system of public education. Why is it that Louis Agassiz is the intellectual father or grandfather of every biologist in America? Because he told his students what he did not know and asked them to find out and tell him. And then:

"His magic was not far to seek, he was so human."

If there was just one element in preparation of teachers for this work that I could have each one possess for the asking it would not be, that they wear themselves to the bone trying to learn everything in creation, but that they become "as little children," saturated with the spirit of little children and come to heartily enjoy studying and learning together with their pupils. Of such, verily, is the kingdom of the heaven of nature study. From what a burden of cram and sham, pretence and bluff would this not set us free, if every teacher in the land could be glad to say: "I do not know. Does anyone in the class know just the best way to plant a grape vine? Who will volunteer to find out all about it and tell us?" Comfortable and vital honesty between teacher and pupil will be the instant result; they will be truly and sincerely working out their problems together, and not until this blessed condition is secured can we hope to have the best teaching of science.

The definition of "Science" as "classified and arranged knowledge," cut and dried hay of the mind, baled and mowed away in books—may have some meaning to the adult who works with it; but it is utterly dead to the child. Lessing's definition of Science as "The eternal struggle of the human mind after truth" is the only one a child can understand. The quest, the hunting, the "struggle" is the thing. We rack our poor brains to invent puzzles, artificial and trifling, while here all about us are the "Riddles of the universe"—all tingling with vital significance. To solve them is what we are here on this earth for—lessons set us to learn in three score years and ten. Lessing saw the point clearly when he defined science, and he says, as you know: "If God were to hold before me the truth itself in His right hand and the struggle to find it out in His left, and ask me to choose, I would humbly

bow before the left hand and say, O Lord, for Thee alone is truth, give me rather the struggle." Every child, and everyone else who is not a book-word eating, mental parasite, would do the same.

This, then, is the first great essential in preparation of a teacher—the ability, the knack, the spirit of working out problems with the pupil. Compare in effect on the class such assignments as the following: "To-morrow you will commit to memory and recite pages 21, 22 and 23" and: "Come on, let us all study this and see who can find out most about it and each may have the chance to tell what he has learned in the class to-morrow."

Knowledge with this spirit and attitude is wisdom—above fine gold, rubies and diamonds—which draws all men to itself. Knowledge without this spirit and attitude is sure to be disagreeable, uncomfortable, of the kind that "puffeth up," which repels and tends to separate pupil and teacher.

This spirit germinated in Froebel and Pestalozzi. It seems to be beginning to bloom, perhaps more especially, in Montessori, in all whole-souled, active education, agricultural and industrial. It is bound to permeate and dominate every fiber of our educational life and bear the rich fruitage of paradise re-won in the earth. "Come on in," the educational water is fine. It is the river of the elixir of life, a veritable fountain of eternal youth: for true delights of nature never grow old. One of the first fruits of this spirit must be to make teaching the most vitally joyous of all human occupations, next, at any rate, to actual home-making, as it leads us back to the most ancient altar of life, the primal source of our profession, the love of mother and father, working together with their children. And this spirit, springing, perhaps, more naturally, out of these primeval and original relations of nature and life, must come to vitalize and leaven the whole lump of our public education. "Come on in," this water of life is fine.

Yes, but, do you say, "you must tell us how." What! Don't you know how to swim, mentally and spiritually in the water of life and truth, as well as physically? Do you stand shivering on the bank of book knowledge, afraid to take the plunge into vital, thrilling sparkling reality? Must I pick you up bodily, or rather, spiritually, and duck you in it? Well, if I must, I must.

Huxley never spoke a truer word; indeed no truer word has ever been spoken in education than this: "Knowledge gained at second had from books or hear-say is infinitely inferior in quality to knowledge gained at first hand by direct observation and experiment with nature." We have always, everybody always and everywhere has a proverbial

distrust of "book larnin," but until recent years how much of any other kind of "learning" have we had in our public schools? Even yet the toils of the books threaten to crush and strangle the life out of our education, like the serpents of the Laocoon group. With the apple trees in full bloom all around them a teacher asked her class to write a description of an apple tree. The class gathered about at the close of the lesson and asked her for references to books on the apple tree. She told them to refer to the apple trees. The results, however, showed that they all went to the library and copied their descriptions out of books.

Dr. Jean Dawson, of the Cleveland Normal School, has just made a remarkable series of tests for knowledge of the most common out-door things, remarkable, I mean, in showing present conditions. About seventy specimens—staple grains, beans and common vegetables, common household plants and branches of common trees—were numbered and passed around the class entering the Normal School, graduates of the high schools and even of colleges. The specimens were large and typical and the pupils handled them at will and were not hurried in their work. A few typical cases follow:

2%	did	not	know	shelled white beans.
20%	"	"	"	bean plant.
4%	"	"	"	clover, of any kind.
10%	"	"	"	a dandelion plant.
67%	"	"	"	a radish plant.
91%	"	"	"	a parsnip plant, with little parsnip.
44%	"	"	"	a potato plant, with little potatoes.
22%	"	"	"	a tomato plant, with blossoms and green tomatoes.
52%	"	"	"	a lettuce plant, with roots, leaves and head.
51%	"	"	"	a squash vine.
60%	"	"	"	a cucumber vine, with leaves, blossoms and little cucumbers on it.
79%	"	"	"	a burdock.
92%	"	"	"	a ragweed.
79%	"	"	"	wheat in head.
43%	"	"	"	wheat kernels in hand.

The figures might indicate that these students have a low grade of intelligence or that such material was not common in their environment. Neither is the case. An average of 85% standing is necessary for admission to the Normal School. Cleveland is known as the "Forest City" and is

truly a city of homes and gardens. All the specimens were gathered within a few rods of the school building and grew, many of them, in profusion everywhere. One of the young ladies had always had a garden at her home and spent many of her summers on a farm, where all the specimens on which she was examined grew in abundance, but her average was no higher in the test than the other members of the class. Although her average standing had been 91 in high school and she had spent one successful year in college, she did not know an elm, apple or plum tree, could not recognize a raspberry or blackberry bush, a melon or cucumber vine, a carrot, parsnip or potato plant, although she had picked up five bushels of potatoes once on the farm. She knew oats only in the head and could not recognize wheat either in the head or after it was threshed.

Dr. Dawson explains this whole condition of mind and knowledge through the lack of developing the senses by first-hand observation. Everything practically for years has been learned from books, books, books. The statement of a problem out of doors means nothing to such people, and this renders live teaching at this late stage extremely painful and difficult. The remedy for this senseless, thoughtless, condition is clearly, insistence upon lessons and first-hand work with things of nature, daily in the home and in school from the kindergarten up. A few minutes a day and a little direction and encouragement is all that is necessary to stimulate and develop invaluable powers of observation and give a clear knowledge of all the common things about the home. While the above data were gathered in Cleveland, other cities are probably in even a worse condition. We must face things as they are. Here is the finished product of our public schools. The fault lies in the system, not in the pupils. What are we to do about it? Get them all in the water of real life working out problems with interesting and vital things and keep them alive and growing.

Typical illustrations will be given later, but before doing so we must suggest two other important lines of preparation.

After the spirit we must have the body and the mind for the work. Given the spirit, the body responds, and we must have strong, sound, vigorous bodies. We must be able to enjoy, fairly to revel in out-door things.

> "As the bird wings and sings,
> Let us cry, 'all good things
> Are ours, nor soul helps flesh now, more than
> flesh helps soul.'"

We must have clear, well developed senses and strong hearts.

"Eyes, ears took in their dole,
Brain treasured up the whole;
Should not the heart beat once
'How good to live and learn?'"

It requires real bodily ruggedness and vigor to say from the heart:

"Then, welcome each rebuff
That turns earth's smoothness rough,
Each sting that bids nor sit nor stand but go!
Be our joys three parts pain!
Strive, and hold cheap the strain;
Learn, nor account the pang; dare, never
grudge the throe!"

Bodily aches and pains, sicknesses of all kinds, are rapidly coming to be recognized for what they are—punishments for errors, mistakes or even crimes against one's self. The first duty of life, biological, educational, social, is to keep the bodily machine up to top-notch efficiency. Keep strong, sleep long, breathe deep, eat right, and we shall have bodies sparkling with euphoria and bubbling over with good health and vital with the will to do good work; bodies capable of carrying the spirit joyfully every step to tops of mountains and through hard days' works. We need and must have in all normal schools and wherever teachers are trained such practical courses in hygiene and physical culture as will make our teachers an inspiration for good health to every school child in the land. In my experience most of the sourness and grouch in school work—I am tempted to say all of it—is due to physical weakness and ill health, and consequent ill-nature and irritability on the part of teachers, or that of the few defective or ill-kept pupils who are so apt to make life a burden to the teacher and the whole school.

Properly prepared themselves, teachers will be able to safeguard the health of their pupils and thus nature study and civic biology in the high school may be made to serve as the really vital foundations for the conservation of national health. Properly prepared for it, our teachers could set us well forward toward saving our billion dollar tax now annually paid to preventable disease. Nature study and civic biology should be the corner stone of national vigor and health conservation.*

If we make this instruction really good enough, we reach

* See in this connection a brief paper by Dr. Jean Dawson: Some Effects of Civic Biology in the Home, *School Science and Mathematics*, 1912, pp. 313-321.

bad health conditions in the homes as we can in no other way. One girl writes Dr. Dawson: "The biology course revealed so many interesting things to me that sometimes I could hardly wait until I reached home to tell my mother. The knowledge of civic biology was so badly needed in our home that it was impossible for me to keep quiet on the subject." And the "mother" in question testifies that the family got almost as much benefit from the course as did the daughter.

Of course, all such divisions are recognized as artificial, but, given the true spirit and a strong, resilient body, the third element in adequate preparation—a strong clear mind—is apt to be a natural consequence of the other two. By this I mean mental vigor and resourcefulness which gives the teacher power to use materials at hand, the elements and opportunities of the environment, and organize them into just the course in nature study or civic biology which the community needs. This is the diametrical opposite of that deadening "preparation" which so often leads the proverbial normal student to cry out: "Dear teacher, I have come to the end of my note book, What shall I do?"

In this work, as nowhere else, we need clear-headed common sense. I know a school superintendent who in visiting his country districts attempted to stimulate interest in nature study about as follows:

"How many of you boys and girls have ever seen a frog?" (Every hand in the room *up*.) "Yes you all know the frogs, I see. How many of you boys and girls ever saw a frog *wink*?" (Every hand in the room *down*.)

"What! Not one of you ever saw a frog *wink!* Well, for country boys and girls I am ashamed of you. Next time I come around I shall expect you all to be able to tell me how a frog *winks*."

He lost his job. His districts were in an uproar. People were not slow in telling him that they did *not* send their children to school to learn how *frogs winked!* Everything that went by the name of "nature study" suffered in consequence. One little girl was seen bringing hands full of grains from her father's barn.

Her father: "What are you doing with that?" Girl: "Teacher wanted me to bring samples of grains to school for our lesson in nature study."

Father: "You take that stuff right back into the barn and leave it there, and you tell your teacher that I don't send you to school for any such tomfoolishness."

In the same neighborhood the question: "What kinds of insects and how many will a toad eat for a meal?" set the

child population studying and protecting toads, and the good work restored nature study to public favor.

So here the aim of education is not stuffing the memory with useless information but developing common sense, mental resourcefulness, to study out and work out whatever it is worth while to teach and to learn. The intelligent part of the public, at least is ready entirely to relieve the teacher of the impossible task of trying to know it all, if only he will teach the children in common sense fashion how to find out what they really need to know.

We have purposely not stopped, till now, to differentiate between nature study and civic biology. The sphere of nature study is the life and needs of the child in the home. Civic biology consists in those problems that require united action of the community to solve. The two fields are naturally very closely related—*i. e.*, if the life of all the homes were ideal the life of the community would be. The nature study point of view is to teach the child what he needs to know. The scientific point of view is to teach the subject. If the scientific student cannot master the subject, he has no call to study science. This line of cleavage is thus perfectly clear between educating citizens and intructing specialists, and even specialists ought to be men and good citizens before they become specialists. The line between nature study and science ought to fall clearly between the high school and the college. It is an advantage, however, to change the name of the course in the high school to "Civic Biology" in order to emphasize preparation for active citizenship.

The trouble with our high school biology in the past has been, and, I fear, still is, that the teachers are trained in college and university and, knowing nothing else, attempt to adapt the college course to the high school. Indeed, most of the textbooks written by college or university men for the high school fall into the deep old ruts and turn out to be college texts. Here is a clear point of view which at once relieves us of college domination. It says: admit no topic into the high school course that is not clearly demanded by the best life of the community, and with this criterion any teacher of sense and resource can organize his own course to fit the needs of his community.

It will not be difficult to choose two or three type topics which will illustrate this spirit and method for both nature study and civic biology. Any one of a hundred different insects —which will continue to cost the country more than a billion dollars a year, until we study them and learn to combine both home and civic effort to control them; any one of a dozen

common microbes—which impose our insufferable burdens of preventable sickness; any one of two score garden, home, orchard or farm fungi, moulds, blights, mildews, smuts, or rusts; the study of birds or gardens, trees, flowers, fruits, nuts; or anything vital to home and community life might serve as well as those selected. Outlines must be the briefest possible but any teacher can fill in between the lines.

MOSQUITOES

PURPOSE.—To study the problem with the view of relieving the homes, public parks, streets and school premises—the entire town, city or neighborhood—of the pests.

METHOD.—Begin by finding out what the pupils know about:

a. What mosquitoes do, bite, annoy, inoculate with malaria, chills and fever, or with yellow fever, lower value of land where they are numerous.

b. Different kinds of mosquitoes. Common rain-barrel or Culex, malarial, Anopheles, or yellow fever mosquitoes.

c. Life history: the eggs and wrigglers, larvae and pupae, of different kinds in neighborhood, habits, and places where they are found.

d. Hunt for breeding places about school premises and, by each boy or girl, around the home (if in a high-school class, in all parks, public dumps, streets, in gutters and catch basins, public reservoirs and the like). Maps showing extent and distribution of breeding places.

e. Methods of dealing with the breeding places—screening and oiling of rain barrels and cisterns, keeping clean, desirable waters stocked with fishes and keeping the shores clear of weeds and pockets of stagnant water, draining or filling undesirable water, or, if this is not possible, covering it with oil, whenever the wrigglers appear in it.

A little timely, well-organized instruction in all the grade and high schools, with appropriate aid of the local papers, which always gladly cooperate, and we gain an advance in home and community life. Special attention to the sewers and catch basins is apt to be the last move on the enemy, and that can be taken by the local board of health or by the sewer department.

THE HOUSE FLY

PURPOSE.—To promote health and cleanly living and relieve home and community life of this time-old plague.

METHOD.—Bring out by question and answer importance of the subject:

a. Annoyance, filth in foods, fly-specking of the windows, chandeliers, ceilings and woodwork. Cost and labor in cleaning up the filth of flies.

b. Filth—disease infections carried by flies—typhoid cases in neighborhood, summer complaint of infants, ditto, tuberculosis, ditto, any others? (500,000 cases of typhoid yearly for the country with about 50,000 deaths, one third of which, probably due to flies. Forty-nine thousand infants die under two years of age, and 7,000 over two

years, by filth infections of acute dysentery; number of tuberculosis cases, unknown.)

c. Different kinds of flies, known to the class? (There are 43,000 species of flies known in all.) Distinguish house, or typhoid fly by appearance, habit, veining of wings—with a magnifying glass. Learn to know the stable fly, the fly, that bites cows and horses and people, in the same way. (This fly has just been convicted of carrying infection of infantile paralysis).

Fly screens disagreeable and expensive. Cost for different families per year. (Expense for U. S. annually, estimated at $12,500,000.)

d. Life history: Number of eggs laid by a fly? Where laid? Maggots, found in horse manure and all sorts of decaying animal or vegetable filth (Professor Forbes bred horse flies out of snuff from a druggist's counter.)

Since eggs are laid *before* material is put into manure boxes or pits, it does little good to make these places "fly tight," and is very hard to keep them so.

Maggots hard to kill—experiment in school-room with kerosene, strong alcohol, copperas, lime, other chemicals. (Buried six feet deep, Stiles found that they worked their way to the surface.)

e. Foods of adult fly? Substances that attract them most strongly? Distance flies travel? Most effective means of killing adult flies? Best traps? Poisons? Out-door methods of extermination?

f. Plans for enlisting every member of the community to keep his premises free from flies? Experience of other places? Flyless homes and cities?

A GRAPE VINE

The grape has been cultivated since prehistoric times. The suggestion is often made that it may have been the first plant to be selected, to attract the attention possibly of some primitive boy or girl, and be planted or encouraged to grow and be trained over the home of man.

Among the many wholesome garden interests here is one of more permanent relation to the home. A grape vine can be obtained for the price of a package of seeds or a bulb and it will live for centuries. No plant is more easily grown or possesses greater aesthetic, educational and practical possibilities. It requires so little ground space that every child ought to be able to find a place to plant his vine, where he can train it over a back porch, a fence or a blank wall.

a. How many of the children have grape vines of their own? How did they get them? Varieties? Age? Size? Yearly crop?

b. Methods of propagation? By layers? Cuttings? New varieties by seeds?

c. Best ways of transplanting a vine? Training? Feeding or fertilizing? Watering? Thinning blossoms? Summer and fall pruning?

d. Stories of grape vines? Origin of varieties? Exhibition of grapes grown by the school?

TAMING BIRDS ABOUT THE HOME

In the sweetest of all songs "Home Sweet Home" among the memories that cling to the wanderer's heart are those of the "Birds singing gaily that came at my call; Give me these and the peace of mind dearer than all." How many of us have these memories? Among our 20,000,000 homes, how many are there around which the birds sing blithely and come at the children's call? What kind of

a country should we have; what kind of homes; what kind of children, if this were livingly true of all of them? It has long been a dream of mine, perhaps the dearest dream in my whole galaxy of dreams, to have this true of every home and of every child in our beloved country. Truly this relation to our bird life will add the liveliest charm and one which will cling most lovingly among childhood's home memories; and why not have every home possess this charm? A charm literally from the skies.

In seeking a universal motive which shall carry this relation to the heart of every child I find this deep, ancient motive of taming things, feeding and giving the cup of cold water. If it is only eating salt together, it brings a thrill, truly magical, of sympathy and life which can never leave the heart as cold as before.

How many of the children have birds tamed to come at call? Kinds of birds tamed? How was it accomplished? How many have bird fountains at their homes? How many provide food for their birds in winter and early spring? How many have put up bird houses? Provided nesting materials?

The end product of the course of nature study should be a living and abiding interest and love of nature. We can develop this only by active doing, by working out, year by year, the problems in our way. The function of the well-prepared teacher is to inspire the children and point out to them the problems that are most worth their while.

I have just written little Mabel Musser and asked: "If you could whisper in the ear of every boy and girl one sentence about your garden, what would it be?" She answers: "I feel nearer God's heart in my garden than any place else on earth."

CULTURAL SCHOOLS OR CONTINUATION SCHOOLS

By Anita U. M. Boggs, M. A.

As one thinks of the thousands and thousands of day laborers, factory workers and salesmen and women employed in the United States, and considers that these men and women are the parents of the future American race, one of necessity realizes that the work and the theory of the eugenists, of the social workers, of the educators, have as yet been but spasmodic attempts to touch the vital point of the full development of these people. The latest statistics on the subject show that only ten per cent of the millions of the school population ever attain the high school. Therefore ninety per cent at the age of fourteen, become in the eyes of the world mature men and women, expected to assume the burdens of maturity and to act in every respect as their more highly educated brethren. For as this vast army of children enters the operative class, the community and state as such cease to be interested in their cultural development.

The public conscience is however not quite torpid. With slow lethargic movement vocational training for children has begun to make some headway in child education. During the last twenty-five years, the haphazard manual training of the high schools has become crystalized into a clear-cut system of trade training penetrating the lowest grammar grade. The editor of the *Manual Training Magazine* (June, 1912), declares: "General ideas alone cannot from their very nature produce the specialist, except the specialist in generalities, and it is the specialist in specialties that causes the world to progress in the twentieth century." As one looks over the public school systems one sees how the idea is carried out. Boston, for example, has three pre-vocational school centers located in the elementary school districts. Any child over twelve years of age may enter and prepare himself at fourteen to attend the Boston Industrial Schools in which *specialties* are taught. Actual manual training begins in the Boston schools in the fourth grade. Opposition to vocational training for a long time came from a rather unsuspected source, the American Federation of Labor. Regarded as a potential wage cutter, the Federation of Labor frowned upon such

training, but in October, 1909, at its meeting in Toronto, it withdrew its opposition and adopted a resolution in favor of trade schools for children between fourteen and sixteen years of age, *providing that other subjects be taught in addition to the industrial training.*

The importance of trade training is now acquiesced in by all educators; it is a potent factor in the bread winner's education. It is essential too that such training shall begin early enough in life to be available for those to whom school years are limited. The philosophy of education, however, forbids us to accept trade training with the few outside subjects which are taught, and rarely made use of as the true vocational training. In his inaugural address, at Princeton University, Dr. John S. Hibben says:[1] "The truly vocational study is that which fits one to respond intelligently and with full conviction to the *vocation* of man—that high calling which is the summons to no particular pursuit nor profession, but which is a worldwide and common call to every man to take his place, to do his work and to play his part in a community of his fellows. Whatever may be our special field of work, as men we are to live our lives within the great social organism of humanity. As Kant says, 'Man's greatest concern is to know how he shall properly fill his place in the universe and correctly understand what he must be in order to be a man.'" In short education should fit every child as it grows into maturity to accomplish something more than mere existence. The ideal towards which education must strive is the complete individual. The factory worker whose mental vision is bounded by his factory, his home and his community; whose lack of knowledge of what is going on in his own time is as great as his ignorance of the deeds of Caesar, is he a complete individual? The salesman behind his counter can probably recite the standing of the baseball clubs or give the social standing of his customers and all the bits of gossip about them, but if asked who is the present king of England or what are the terms of the Hays-Pauncefort treaty in regard to the Panama canal, will endeavor to turn the question by declaring such things do not interest him.

What is the cause of this ignorance, this lack of interest in all those things which go to make history, those subjects which are vital even to the individual who is not interested? It is certainly not the lack of opportunity to read about them; for the daily newspaper circulates as freely among the employees as among the employers. The cultured and the un-

[1] "The Philosophy of Education," *North American Review,* June, 1912, pp. 846-857, Vol. 195, No. 6.

cultured alike have access to the same source of information. Is this lack of development attributed to temperament? That would be an unfair attribution for temperamental preference exhibits itself only after it has had an opportunity to examine and select. The average working man or woman has lacked that opportunity. His education has been one-sided, uninteresting, he is but the logical product. At the age of six he enters the public school, is put in a class with thirty to fifty other children and is taught the elementary subjects in the most uninteresting fashion. The subjects have little or no connection with his life outside of school. Haphazard physical training is given; superficial physical examination, in which only the most patent defects or diseases are discoverable, is considered by the citizens of the state as sufficient to safeguard the lives of the children and to produce a race of physically better, healthier parents for the second generation. As the child advances in his school work the separation of school subjects and life becomes wider and wider. At the mature age of twelve he is introduced to manual training work; within the following year he must elect whether he shall study to become a mechanician, a bricklayer or a clerk. After his election has been made his whole attention is concentrated on learning his trade—outside subjects are frills to be gone through with hasty indifference. This indeed makes a man a specialist in his trade, he may know the composition of the material, its possibilities and limitations; he may be a fairly successful economic unit, but as a complete individual, he is a failure. The number of men who rise is pitifully small compared with those who stagnate at a dead level or degenerate. The fault lies not with the men themselves, but on the side of inadequate irrational education.

Germany was the first, as usual, to notice this lack among her working population, and after a thorough study of the problem devised the system of cultural schools, sometimes called continuation schools (Kaufmännische Fortbildungsschulen). The cultural school is a continuation for at least two school terms of cultural studies by every apprentice in commerce or industry. Attendance at such a school for a certain number of hours a week is compulsory on the part of the apprentice: the employer on the other hand is required by law to permit his apprentices to attend the schools which are held for a certain number of hours during each day, and to pay said apprentices for the time consumed in such school work. In 1885 Prussia subsidized her cultural schools to the extent of one-half million marks, the schools numbered 664 with 5,800 pupils. In 1908 the subsidy was three million

marks for 2,100 schools with 360,800 pupils. The majority of German states now subsidize such schools if they are held before seven o'clock in the evening. Würtemberg in 1906 passed a law organizing cultural schools, Bavaria prepared a similar law. In the latter instance the Sunday schools were transformed from two hours of instruction to cultural schools of six hours' instruction. About the same time Leipzig followed suit. Then the movement spread to Scotland. During the year 1909-10 Hamburg established a Bureau of Cultural Schools which teach the theoretical side of practical subjects; the emphasis, however, is placed on cultural subjects. The Hamburg statistics for the year 1909-10 show the numerical result at least of these schools.

Hamburg Cultural Schools 1909-10 (Kaufmännische Fortbildungsschulen):

Men	Summer	Winter
Workingmen (Handelsbeflissene)	2,492	2,838
Clerks, teachers, etc. (Beamte, Lehrer. u. s. w)	202	249
School children (Schulknaben)	479	472
Miscellaneous (Unbestimmte)	55	51
Total	3,228	3,610

	Summer	Winter
Women workers (Weibliche Handelsbeflissene)	1,050	957

Total men and women for Summer and Winter:

	Summer	Winter
Men	3,228	3,610
Women	1,053	957
Total	4,281	4,567

The population of Hamburg is about three-quarters of a million. To all probability the cultural schools have increased in a ratio proportional to their impetus at inception.

There are no cultural schools in the German sense in the United States. Every large city has its night schools of which the working classes may avail themselves if they desire; there are classes for general education conducted by the settlement houses; free lectures on city and philanthropic foundations are held during the winter. Few of these, however, are more than moderately successful. Optional attendance has its in-

variable concomitant result—few go regularly. Some of the large department stores require their employees to have a certain amount of education. If a boy or girl coming into the store is not up to its requirements, he must spend so much of the store's time each day in the schools conducted by the store.

The John Wanamaker system of training is an admirable example of department store schools. In 1896 under the direction of Colonel William R. Scott, the "John Wanamaker Commercial Institute" was organized. All employees under eighteen are required to attend. At seven-thirty each morning every "cadet" is expected to report to his divisional teacher for assignment to the physical training department, to study! or vocal culture or to the instruction in the use of musical instruments. Systematic military training is given each boy and girl six mornings a week in thirty minute periods. Besides the drills, the boys are trained in regular gymnasium work in a gymnasium admirably equipped with the latest gymnastic appliances. The girls receive the same type of instruction omitting the very heavy work however. A physical examination is made of each cadet as he enters and records of his condition and improvements are always on file. Removable physical defects are attended to by the store corps of physicians, dentists, etc. For short the physical welfare of the employees, both old and young is adequately cared for with no expense to them. The aesthetic side of the children is developed by the means of the choral societies, by the *Military Band and Drum and Bugle Corps,* one for girls and one for boys, by the *John Wanamaker Commercial Institute Orchestra,* for the more advanced of the musicians, by the Dramatic Club, etc.

The Commercial Institute, however, lays the greatest stress on the educational side. Every boy and girl must attend the classes, must attain an average grade and must complete the course within a reasonable period. The subjects required are mathematics, spelling, penmanship, correspondence, business form, English, United States history, bookkeeping, commercial geography, commercial law, banking, public speaking, ethics, stenography, typewriting and French. These classes last from seven-thirty to ten each weekday morning. Besides these classes for the younger employees, the older men and women have a *University Course.* Each department forms a class and the head of that department is usually the teacher. Certain subjects are chosen for investigation and private research takes the place of lectures. Colonel W. R. Scott, when asked of the efficiency of these schools said, "We find our honest

salesmen and saleswomen those who have grown up with us, who have gone through our commercial schools. They are eager for knowledge and seem to thoroughly enjoy their researches. It is a significant fact that the majority of the heads of our departments are graduates of our Commercial School. The training, mental, physical, aesthetic and ethical makes a better man and from a selfish viewpoint, a better clerk."

The working class of the United States in their peculiarly powerful position should be the best informed, most keenly interested people in the world. Every individual ought to know the affairs of the world as they change day by day; he should be taught to consider an industrial development in Argentina of the same importance as the discovery of potash in the United States or the building of a new factory in his own neighborhood. To assimilate, to digest and to draw intelligent conclusions from his facts, will change a narrow minded, bigoted, self-satisfied nonentity into a forceful, positive factor who in the long run will carry the standards of progress far in advance of the most highly specialized specialist. The social settlements are trying to uplift the poor, to inspire them with noble ideals. Their work on the whole, through no fault of theirs is as a man alone in mid-ocean who sinks because he does not know how to swim. The poor will forever be poor, the clerk will remain a clerk until they are taught to think intelligently, to react as the complete man to the community environment.

Commercialism in its most virulent form has penetrated the very roots of our society. Our children desire to study those subjects only which increase their economic efficiency. The workers desire to spend their lives in moneymaking with amusement as their only recreation, the citizens feel no responsibility to pay extra taxes to support compulsory cultural schools, the employers begrudge or refuse the time during the day necessary for efficient work and attendant results. It is not necessary to have the apprentice systems to make such education compulsory. If the state can legislate for children of fourteen, it has also the power to control and to require their school attendance to the age of eighteen. Any intelligent employer can perceive the patent difference between the keen, alive, well-informed clerks and those whose only thought is to spend as much time as possible doing nothing or as little as possible for their salary. At the moment the United States is developing not men but machines. To fulfil one's duty as a citizen is of little importance, to be, as a father the example of culture, of uprightness, of morality to one's children is but an intermittent ideal; to live as a man is a lost art.

The people of the United States can not afford to be short-sighted. The nations of Europe are developing as nations, the people of the United States as individuals. National pride and race betterment demand that we not only follow the example of others in the full development of our people, but that we forge ahead and give every man the opportunity to learn to be a man.

THE BOY SCOUTS THE SALVATION OF THE VILLAGE BOY

By Henry S. Curtis, Ph. D.

During the last four years the order of the Boy Scouts has been organized in every country in the civilized world. There are at present probably, in the various patrols, more than three million scouts, a number equal to the standing army of Russia. In this country the order is less than three years old, yet there are already three hundred thousand scouts and a whole library of books devoted to scouting. Perhaps at no time before in the history of the world has a social movement taken so strong a hold on the public imagination. Whenever an idea spreads as this one has done, it must come as the satisfaction of a long felt want. There is no explanation, unless there is some intimate relationship between its ideals and the natural ideals of adolescent boys.

The honor of founding the order belongs to General Baden Powell, the hero of Mafeking. He discovered that in times of peace, army life was very uninteresting to the men, and there were constant desertions. He sought to make it more interesting and hit upon scouting as the means. He had thought of it as a purely military expedient, but on his return from the war he was surprised to find that the manual that he had drawn up for his men had been adopted by several private schools in England. This led him to think that it might be really well fitted for boys anywhere, and he was led to revise and enlarge his manual. In doing this he got many suggestions from the Society of the Sons of Daniel Boone, which had been founded by Dan Beard several years before, and from the Woodcraft Indians, which had been organized with similar purposes by Thompson Seton. The bands of the Woodcraft Indians already numbered one hundred thousand boys, and Seton was conducting a training class in New York for the leaders of these bands.

On the Organization of the Boy Scouts of America, the Sons of Daniel Boone and the Woodcraft Indians came in as a part of the new order; and Powell says that we have here in America the strongest organization of the Boy Scouts there is. The Scouts are often criticised as a military organization, but the founder always insists that the work is to be peace scouting and must not be military in any sense. He

says the boys will sicken of the military drill, and, while tactics are probably the easiest thing to give them, the boys will soon give up the practice. In this country we really have the Sons of Daniel Boone, the Woodcraft Indians, and the Boys' Department of the Y. M. C. A., inside the dress of Powell's Scouts. Outside the uniform and the patrol organization and name and an occasional drill, which is not encouraged, the Boy Scouts of America have nothing military about them. The order is trying to develop the sturdy virtues of the pioneer, and the love of outdoor life rather than soldierly virtues or vices.

The manual is the sort of a book that ought to be in every adolescent boy's hands. It covers essentially the virtues and accomplishments that are fundamental to youth. The scout must be familiar with nature, he should recognise all the birds, animals, fish, and flowers. He should be able to follow a trail, and to find his way in the wilderness, to camp out, and cook his own food. He should acquire the arts of the pioneer and the Indian. He is to avoid the wretched butchery of game, that so often characterizes the city hunter; for "the scout does not kill animals or birds except for food." He must practice the self-reliance and hardihood of the wilderness. These are virtues that appeal to every boy. They are the best possible antidotes for the idleness and coddling of so many fond homes.

The Boys' Y. M. C. A. has added to the scouts the idea of chivalry which has two fundamental concepts, those of honor and courtesy to women and the weak and aged. These are essentially adolescent virtues, most easily taught at this age. They add a sense of romance and dignity to the order. They also are essentially manly virtues of a crude but vigorous age. Some of us realize to our sorrow that a tradesman's word is not always as good as his bond, that an assurance that a thing will be done falls short of a guarantee, and the business world should welcome any sort of an order that would create and promote this sense of honor. Young America has as a rule much of the outer show of gallantry toward women, but this does not always represent that respect, almost veneration, that chivalry was supposed to stand for. At its best, chivalry is probably the best safeguard we have against the social evil.

Health and Athletics

There are two chapters in the Manual that come from the modern movement for health and athletics. These are excellent practical hints in caring for the health, and the games

are a good series of outdoor games, such as any company of boys would play with pleasure. These are for the most part real scout games, which involve skill in woodcraft and scoutcraft.

First Aid and Life Saving

Scouting promotes the heroic virtues, and offers bronze, silver, and gold medals for deeds of heroism. Nothing could be more salutary than this promotion of courage. It invites the boy to run into danger, but only that he may rescue another. The order gives him its hero medal when he does it. Baden Powell tells a story of a boy who saw a runaway team in the suburbs of London. He got into the wagon, climbed out on the wagon tongue and knocked the horses' heads together until he "knocked some sense into them." He was given a medal for his bravery, and there followed a regular epidemic of stopping runaway horses among the boys. Recently I saw a horse running away down a crowded street. There was an eight or nine-year-old boy in the carriage. The street contained a goodly number of automobiles and carriages, and its usual quota of people on foot; but even the autos scurried to the gutter and not a person lifted his hand. We evidently need some of this scout training. There have been a number of cases where scouts have saved drowning people and not a few rescues from fire. The first aid is more or less necessary to scouts, because their scouting often leads them about the wilderness, where they are by themselves. Injuries are likely to occur, and they will be helpless if they cannot render this assistance themselves.

Patriotism

The scouts seek to inculcate patriotism through teaching respect for the flag, and the history of the United States. The scout pledges himself "to do his duty to God and his country."

The Scout Patrol

Scouts are organized into patrols of eight boys. Each patrol has a leader and an assistant leader. The leader at least is generally an older boy. Three or more patrols constitute a troop, and a troop is in charge of a scout master, who must be an adult. Boys from twelve to eighteen years of age may become members of a patrol. The scout wears a uniform of khaki, and carries on his hikes a billey that resembles a knapsack.

The Scout Oath and Orders

On becoming a scout the boy takes the following oath:

"On my honor I will do my best:

1. To do my duty to God and my country, and to obey the scout law;
2. To help other people at all times;
3. To keep myself physically strong, mentally awake, and morally straight."

The scout law may be summed up as the ten commandments with several social virtues added.

There are three common orders of scouts. The first degree is that of a tenderfoot, who must be able to pass the following requirements:

1. Know the scout law, sign, salute, and significance of the badge.
2. Know the composition and history of the national flag and the customary forms of respect due to it.
3. Tie four out of the following knots: square reef, sheet-bend, bowline, fisherman's, sheepshank, halter, clove hitch, timber hitch, or two half hitches.

In order to advance from this lowest order to become a second class scout, he must gain proficiency in a number of outdoor arts and he must have earned and deposited at least one dollar. In order to become a first class scout he must be proficient in general in the arts of woodcraft and campcraft, know first aid, have at least two dollars in the savings bank, and enlist a boy who has been trained by himself as a tenderfoot. After a boy has become a first class scout he may go on to become a life scout, a star scout and an eagle scout by acquiring proficiency in a number of arts and industries, such as agriculture, blacksmithing, athletics, swimming, surveying, etc. For each of these he must take an examination, and will receive a merit badge if he passes. The life scout must get five of these badges, the star scout ten, and the eagle scout twenty-one. In acquiring these merit badges it is not considered that the boy is really learning a trade, but he is learning to be handy along the lines of certain trades. He is getting the groundwork on which technical skill can be later built. It is almost necessary that the first steps be taken early if the boy is ever to be a master workman, and this training is a much needed supplement to the work that the schools are giving.

Popularity of the Boy Scouts

Why have the Boy Scouts had their marvelous popularity? I do not suppose that ever before in the history of the world has an order been organized in all civilized countries in so short a time as has the Boy Scouts. The order seems to be an almost complete proof of what is known in education and anthropology as the recapitulation theory, which is that "the individual repeats the history of the race." In other words the child is a primitive man, he climbs up to civilization by much the same stages, has much the same interests along the way, as had the race in its progress. The individual child is constantly conditioned in this progress by imitating the actions of a later period, by the advice and encouragement that is given him for different kinds of excellence. Yet still his deepest interests are the same as were those of the race at his stage of development. The boy enters at puberty upon a stage corresponding in a way to the period of tribal life. Its chief activities are, hunting, fishing, fighting. It is a wild, free life in an environment of nature. It is a time of courage sometimes of cruelty, of physical hardihood, of close observation and a simple strategy that is closely akin to the cunning of some of the higher animals. There are the fundamental interests of boys everywhere at this period of development. It is at this time that the boy first forms his gang, that he begins to play team games. He wants to hunt and fish, to camp out, and sit around the fire. His reading is mostly of tales of adventure. He admires above all other things independence and daring. These are essentially the virtues promoted by the Boy Scouts, although the order has aimed to substitute the interest of the naturalist for the love of the hunter and it has introduced a number of moral precepts which do not psychologically belong to the period.

I am inclined to think that the order is at present suppressing too much the military ideal. For the soldier is one of the natural ideals of the adolescent boy. It has to contribute the ideals of obedience, neatness and orderliness. It does not follow at all that the boy will be inclined to war when he grows up, because he has had military drill as a boy. In fact I am inclined to think it is likely to have exactly the opposite effect upon him. The soldier's duty is always more attractive in prospect than it is in realization. Baden Powell advises against frequent military drills, because he says that "it always makes the boys sick of it." If a boy has had his military craving satisfied in this way in his boyhood he will not carry over an unsatisfied craving

to later years where it may cause trouble. The Boy Scouts are now organized in every country of the civilized world. In the near future we may look for international encampments and meetings. It is this knitting together of peoples across national boundaries, the meeting in conferences and conventions that is one of the greatest safeguards against war, and I am inclined to think that the chances of a world peace are improved rather than lessened through the organizatoin of the scouts.

As the scout virtues are essentially adolescent virtues, I cannot but wonder if twelve is not a year or two too young for a boy to be a scout. The ideals of the order seem to represent a period that usually begins about two years later, and while the little boy wants to imitate the big boy, it is not always a good thing to let him do it. Precocity is apt to lead to the feeble development of function. I do not think that the boy who takes it up at twelve will ever find it quite as interesting as he would if he waited until a year or two later. The older boys of sixteen or seventeen do not wish to associate with these boys of twelve and it will almost surely detract from the good fellowship of the camp, which is one of its essential virtues. If a boy becomes a scout at fourteen and remains a member of the troop until he is eighteen, he is a scout for four years, which is long enough.

If scouting represents and teaches the virtues of the chivalric age of adolescence is it not a training which every boy should have? I believe it is. It is a more fundamental training in manliness, virtue, self-reliance and efficiency than the boy is getting out of the school. It is certainly one of the best safeguards against the peculiar temptations and vices of puberty. It develops the good fellowship, for which there is at that time such a craving, and which is apt to ripen into the friendships of a lifetime. Friendship creates most of the joy and ultimate values of life, but we are thus far doing almost nothing to create it. Here we are met with an obstacle which seems to be almost insuperable. Very few men have the necessary training for scout masters, or the time or the inclination to render this important service. It is difficult to get the people to take courses of training to prepare them to render a service that will not be compensated. Hence I am inclined to believe that the order can never come to its own, until it becomes public and is required of all boys as a part of their school work. It is already required in a number of private schools and, I understand, in all the public schools of Russia, where its military side will doubtless be emphasized. Why not dismiss the upper

grades at noon on Friday and let the older girls have their camp fire and the boys have scouting? This could not well be worked in the one-room rural school, and it would require nearly as many men teachers as women teachers in order to carry it out. But there are many new subjects, especially the industrial ones, and games and athletics that are also demanding more men teachers. Friday afternoon does not usually amount to much for school work. Its present value is not comparable to the value that might come from the scouts and the camp fire girls. This would apply especially to the high school age, and the high school is probably the place to try the experiment.

A number of things that scouting is teaching are the most fundamental things to the welfare of the country, the love of nature and the open air life, self-reliance, observation, co-operation, good fellowship. These are what the country needs. The rural community might very nearly or quite afford to exchange the education of the rural school for such a training. However under existing circumstances a satisfactory organization of the scouts is practically impossible in the open country, because there are no scout masters available, because the boys of fourteen and over are too widely scattered about the community to get together easily, and because thus far the country has not found the time for the boys to have the meetings. Again some social center is almost absolutely necessary if the scouts are to be organized in the country at present unless they can be organized through the county Y. M. C. A. or through the Sunday School classes, because there is no place otherwise where boys who have finished the elementary school can meet together to affect an organization. As there are very few counties having the county Y. M. C. A., regular Sunday school classes for boys with competent leaders, or social centers, it is safe to say that at present any satisfactory organization of the boy scouts is well nigh impossible in the open country.

Boy Scouts for the Village

It has been said, "God made the country, man made the town, but the Devil made the little country village." The country or suburban village is the most attractive place of residence in many ways that there is. The garden village seems to be the ideal toward which our housing and town planning movements are tending. In the village one may have a house to himself. He may have a yard and a garden, and room and safety for the play of the little children. If he wishes to walk or drive, it is only a short distance to the open

country. But for the children from about ten years of age to eighteen, the country village is probably the most dangerous place morally there is. The children in the cities have their playgrounds and their clubs, libraries, museums, stores and other places where they may go and find instruction and pleasure. The children on the farm have their duties which keep them busy and teach them the trade of farming; but the village boy and girl miss both of these sources of education, the varied life of the city, which makes it a constant exposition of the arts and ways of civilization and the training of work which comes to the boy on the farm. There is no other place where there is quite so much idleness among the children as there is in the rural village, and idleness is always dangerous. It is in periods of idleness that children learn to smoke cigarettes, to shoot craps, to tell the smutty stories, to hear the smutty stories, to plan most of the things that their parents do not wish them to do. A boy may play baseball with eight other boys all of whom belong in the reform school, and so long as he plays he will not suffer much harm, but let him loaf around with these boys for a half hour and there is no telling how much harm may be done. A girl may play basket ball with four loose girls and be a perfectly good virtuous girl through it all, but let her sit down and gossip with these girls for a half hour, and a whole life may not be sufficient to undo the harm.

The village is probably the best place that there is for the organization of the Boy Scouts and it is also the place that needs them the most. The Boy Scouts is an outdoor order that is teaching the arts and crafts and the virtues and the independence of the wilderness. It is difficult to do these things in the city. Very little of woodcraft or scoutcraft can be practiced there. The order cannot well be organized in the country on account of the amount of work and the lack of leadership, but all the conditions seem to be favorable to the organization in the village. The surrounding country is available for hikes. There are usually woods and lakes in the neighborhood for scouting and camping. There is an abundance of time, and there is usually in the village some young lawyer or doctor or clergyman not overburdened with duties who can take charge of the troop. I believe the Boy Scouts and the Camp Fire Girls are the solution of the child problem in the village for the older boys and girls, and with this organization, the village will become the most attractive place in the world for anybody to live.

REDUCING RETARDATION

By Freeman E. Lurton, Superintendent of Schools, Anoka, Minn.

It is unwise, wasteful, and largely unnecessary for children in the grades to be retarded, that is, to be too old for the grades they are in, and therefore less likely than others to complete the work of the grades, to say nothing of attempting the work of the high school. Since retarded children receive less education, in thoroughness and extent, than others, and acquire the *habit of failing,* they are ill prepared for competing with the more fortunate ones in the affairs of life, and the handicap incurred in school is likely to impede them to the end. Therefore it is highly essential that careful consideration be given the matter of retardation.

Two kinds of retardation are recognized: Mental and administrative. In the former the child is wanting in normal mental capacity and is properly a subject for special schools and special treatment. He should be dealt with primarily by a psychologist. There are comparatively few of such and they do not concern us at the moment. Those *administratively* retarded are of normal mentality but for some reason have fallen behind the school schedule laid down by the school authorities. The major part of the retardation present in the public schools is purely administrative and accordingly susceptible of remedy at the hands of school superintendents; hence the situation has its encouragements.

Years of experience seem to teach that there is less difference than is commonly supposed in the actual mentality of children. Habits of industry or idleness, home-staying or street-running, attention or inattention, plenty of or too little sleep, regular or irregular school attendance, sufficient or inadequate nutrition, and similar matters of training or environment rather than difference in mental endowment, determine largely whether children do well or not in their school work.

A school system is efficient about in proportion to the number of its pupils who do the required work in the scheduled time, assuming always of course that a constant and reasonable standard of thoroughness is maintained.

Three years ago, on taking charge of the schools here, the writer concluded, after a preliminary survey of the situation, that there existed too large an amount of retardation, and

at once attacked the problem. By various means the desired end was approached. The attention of the teachers was called to the condition and their sympathetic interest enlisted in a systematic effort to reduce the amount of existing retardation.

They were convinced that there was a direct and controllable relation between retardation and irregular attendance, tardiness, technicalities in setting and marking examinations, neglecting to coach up the slow pupils and those who have lost time from school, care or carelessness in assigning lessons, and similar matters that lessen the pupil's grasp upon his work. The exercise of greater care and sympathy, and in general a greater concern for the individual than for the "room" has produced some cumulative and valuable results in more ways than are indicated by the tables that follow, for such things transcend statistics and refuse to be tabulated.

The most serious thing is time lost from school. Pupils cannot often absent themselves from school and still "make grade." On the other hand very few pupils who attend regularly fail to be promoted at the year's close.

The first table gives the average number of days attended by each enrolled pupil annually out of the 180 that constitute the school year.

TABLE I—AVERAGE YEARLY ATTENDANCE, IN DAYS.

Year.	Number Days.	Gain in Days.	Gain in Per cent.
1909-1910	147		
1910-1911	154	7	4.7
1911-1912	159	5	3.2

Gain of 1912 over 1910, 12 days per child or 8.2 per cent.

This increase in attendance was brought about by showing the pupils what the loss of time meant to them, by requiring written excuses for absence and accepting none that were trivial, by compelling pupils to make up lost work and lost time if excuses were not accepted, by writing to or calling upon parents of irregular pupils, and by giving to each one who was absolutely perfect in attendance a certificate vouching for the fact, duly signed by the officers of the Board, the teacher, and the superintendent. These certificates are eagerly sought for and have proved a strong incentive to good attendance. Their results are shown in Table II and were a large factor in the results shown in Table I.

TABLE II—CERTIFICATES OF PERFECT ATTENDANCE.

Year.	Number.	Gain Per cent.
1909-1910	22	
1911-1912	61	177.2

As one would expect, a gain of twelve days per year for each child and a gain of 177.2 per cent in the number perfect in attendance would lead to a larger number of promotions each year. And it did. See next table.

TABLE III—PROGRESS RECORD.

Year.	Per cent Promoted.	Gain Per cent.
1910-1911	79.6	
1911-1912	87.3	7.7

This agrees quite closely with the gain in attendance.

Now, for final consideration, it is interesting to note how the number of retarded pupils has decreased, year by year, under these efforts.

TABLE IV—DECREASE IN RETARDED PUPILS.

Year..	Per cent Retarded.	Per cent Decrease.
1909-1910	70.0	
1910-1911	65.8	4.2
1911-1912	62.1	3.7
1912-1913	55.3	6.8

A total reduction of 14.7 in three years.

An investigation conducted in 1910 and covering practically the entire State of Minnesota showed the percentage of retarded pupils to be 59.3, so that now this place instead of being one of the worst towns in respect to retardation is now better than the average. There seems to be no good reason why the continued application of the above methods should not reduce the percentage of retarded children to a very small minimum, probably not over 10 per cent.

HEIGHT WEIGHT, VITAL CAPACITY AND RETARDATION

B. W. DeBusk, State Teachers College, Greeley, Colorado

The table published in this preliminary study sets forth the relation between the height, weight and vital capacity, and the grade distribution of the boys of the Colorado Teachers College Training School. The number, a hundred and five, is too small for satisfactory results, but the table is deemed worthy of publication because of what it suggests. The age is that of the last birthday. Gymnasium scales and stadiometer were used for height and weight. Corrections were not made for clothing. It is believed that this factor does not vary sufficiently to affect the general results. A wet spirometer was used to measure the vital capacity.

The groups studied were small. The retarded groups consisted of from one to eight boys. No attempt was made to isolate the various factors that contributed to the retardation.

Investigators do not agree in regard to the correlation between the different physical measurements and the school standing of the children. Porter for example, found that the precocious children of a given age were both taller and heavier than the mean; while the dull ones were lighter. The later study of Smedley was in agreement with these conclusions. Kline and Smedley found that the mean weight of boys in the truant school was less than that of boys in the public school, except at the age of ten. Gratsianoff and Sack, and MacDonald found a positive correlation between height and ability. On the other hand, Gilbert found no constant relation between height and weight and mental ability. He thought that the dull children were heavier than the bright between the ages of ten and fourteen. Porter and Smedley took the relation between grade and age as the expression of ability; while Gilbert took the teachers' estimate. Smedley found a positive correlation between school standing and vital capacity. Gilbert, on the other hand, found the correlation to be indifferent or negative, except that from ten to fifteen duller children have larger capacities.

The accompanying table gives the ages, grades, years of retardation and the mean measurements of the groups. The measurements of the first grade are not given. The greatest

retardation is reached in the fourth grade and maintained through the course. The first accelerated children also appear in this grade.

As a rule, the retarded groups are both lighter and shorter than the accelerated or normal. The most positive correlation, however, is with vital capacity. Almost without exception, when compared with normal or accelerated children of their own age, the retarded show a vital capacity under the average, and also a greater variation from the norm than that of either height or weight.

Another line of investigation is suggested when we divide the vital capacity by the weight. This gives the average for each pound which tends to show the ease with which the oxygen supply of the blood and tissues is renewed, and should give a fair measure of the endurance and resistance.

It is not our plan to give more than an illustration at this time. Take the third grade for example: The eight-year-old children show an average of 24.4 c.c. per pound, the nine-year-old, retarded one year 23 c.c., the ten-year-old, retarded two years 20 c.c. The fourth grade gives the following: the accelerated 24.6 c.c., the normal 25 c.c., the retarded one year 24 c.c., retarded two years 19 c.c., retarded three years 22.7 c.c. At the ages thirteen, fourteen, and fifteen there is much less variation from the norm. This is probably due to the fact that fewer groups enter into the norm and that these are retarded; also that at these ages the children are taking part in the athletic activities of the school. The effect of such exercises on vital capacity is well known.

Those children who are in their proper grade positions for their ages show a constant relation of 25 or 26 c.c. per pound for all ages. Since height and weight vary least from the norm, it seems that the demands of growth must be satisfied first and that then the remaining energy can be turned to other work. This is suggested as a possible factor in accounting for much of the retardation.

Without isolating the different factors that contribute to the retardation, definite conclusions can not be drawn; yet the limited data presented suggests the following:

That the retarded children are as a group apt to be below the normal or accelerated in each of the measurements.

That the accelerated tend to stand above the norm.

That the accelerated and normal show a higher vital capacity per pound than the retarded.

That vital capacity varies most from the norm.

Out of the above has grown a number of related problems which are now under consideration, such as the verification

of the above extended data, the correlation of these measurements with the position of the children as determined by the Binet tests; also the correlation with the results of tests for tuberculosis, with the presence of adenoids, with physiological age, and with such other factors as may seem to contribute to retardation.

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	Age.....	7	8	9	10	11	12	13	14	15	16
Grade	No.....	13	1								
	H.....	3–11.7	4–1.5								
	W.....	51.7	55								
	V. C.....	1093c.c.	1500								
III	No.....		5	2	2						
	H.....		4–1.5	4–2.25	4–4.875						
	W.....		60.6	68.5	70.5						
	V. C.....		1481	1600	1450						
IV	No.....		2	7	4	1	1				
	H.....		4–4.125	4.5	4–5.87	4–6.5	4–9.25				
	W.....		61	65.8	64.37	67	66				
	V. C.....		1500	1714	1575	1300	1500				
V	No.....			2	6	5	2	1			
	H.....			4–4.75	4–6.54	4–6.25	4–8.125	5–3			
	W.....			68	72.83	71.4	83.5	101			
	V. C.....			1850	1950	1860	1900	2300			
VI	No.....				3	5	5	2	1		
	H.....				4–6.5	4–7.85	4–7.62	4–11.25	4–10.75		
	W.....				70	77.7	74.2	80	89		
	V. C.....				1660	2000	2020	2350	2200		
VII	No.....					1	5	3	5	2	
	H.....					4–8.25	4–5.9	4–11.8	4–8.25	5–4	
	W.....					83	76.5	61.5	96.85	111.75	
	V. C.....					2100	1980	1900	2400	2700	
VII	No.....						2	4	1	8	4
	H.....						5–0.18	5–1.75	5–4.625	5–5.56	5–5.68
	W.....						81	101.75	105	117.57	128.82
	V. C.....						2150	2550	2800	3112	3275
Norm.	H.....	3–11.7	4–2.15	4–3.5	4–5.74	4–7	4–7.8	5–0.7	4–9.8	5–5.25	5–5.68
	W.....	51.7	60	63.25	69.7	74.62	76.25	85.25	92.6	116.27	128.82
	V. C.....	1093	1488.7	1718	1725.3	1891.6	1973.3	2290	2428.5	3029.6	3275

No., Number.
H., Height in feet and inches.
W., Weight in pounds.
V. C., Vital Capacity in cubic centimeters.
Proper grade positions for the age underlined.

THE FACT OF PERSONALITY IN THE DEVELOPMENT OF AN ATYPICAL CHILD

By Martha MacLear

Whatever personality may be, whether it is the sum total of all the qualities that go to make a person what he is or whether it is something else, the fact of personality cannot be denied. It is this fact which is the largest factor in developing the character and intellect of atypical children. This is what Montessori, following Seguin, means when she speaks of the spirit of the teacher calling to the spirit of the child. Psychologists call it suggestion, for we are what our companions expect us to be. With one, we are gay and witty, with another stupid and dull; with one, we are dogmatic and launch into lengthy discussions of a political nature, with another we are dreamy and artistic and talk of composition and the value of chiaroscuro. So with atypical children, with their uncomprehending companions they are stupid and dull; with their disappointed, arbitrary parents, they are sly and stubborn. But to a teacher who calls to their personality through the force of her personality, they respond eagerly and give the best of which they are capable.

Several years ago, I was asked to tutor a so-called defective child. She had been examined by a well known psychologist, and he was rather dubious as to whether any great improvement could be made in her mental condition. Her parents were well-to-do and had done everything they could think of to help her, but had never been able to find a teacher who could arouse her dormant mind. At last, they went to a celebrated school, the principal of which was interested in just such problems. By his advice the psychologist examined her mentally, and a doctor physically, and she was started on a new path. I was told to do anything that I pleased, the inference being that all concerned looked for results.

My task was made easier by the fact that from the first Lena took a liking to me. Fortunately, I had not red hair, which had been the cause of her disliking a former tutor. But I soon discovered that she (and I suspected her family) looked upon me as a social inferior because I worked for my living. In fact, Lena asked me naïvely one day, what I was before I was a teacher, had I been a lady! This sense of superiority counted for very much more with her than any

sense of mental inferiority she might feel. Therefore, my first task was to make Lena, and likewise her family, feel my social importance.

There were various trivial ways in which this attitude showed. Lena would, in a rather condescending way, bestow upon me all her old, dirty erasers or bits of cast off paper. These I promptly refused to accept, and suggested that she throw her rubbish in the waste basket. Being of a generous nature, she liked to treat me, but was not allowed to spend more than ten cents for soda. Whenever she did this, I took her the next week to Huylers and spent fifteen or twenty cents on some fantastic drink. Although not given to braggadocio, I made it a point to speak casually of dining at the home of the principal of the school, or of calling on the wife of the learned psychologist, or of spending week ends on Long Island. The fact that I had been, for many years, in the school, and so knew every one from the janitor to the superintendent, aided me in giving Lena and her family the desired impression. When this was established, I had no further trouble with either Lena or her family. They were willing to do whatever I said. It is curious how simple-minded and impressionable New Yorkers are for all their boasted sophistication.

Lena was fourteen, rather tall for her age, with pretty dark hair and eyes. The only evidences of a dull mentality were a low forehead, and a dark, sullen look which came over her face at times. Also, she held her head down and had a furtive glance. It was never explained why she was mentally inferior. Perhaps there was some accident with her birth. The rest of the family, although not brilliant, were of average intelligence.

It had been decided that Lena should sit with the sixth grade, take sewing, cooking, art, and elementary science with the class, special gymnastics with a special teacher and the three Rs with me. She was a pathetic little figure, sitting in a corner of the room. The haunted, evasive look on her face showed that she felt that she was different from the other children. It was so apparent that she was misplaced that the next year she was put into the high school. There we followed the same scheme of work, placing her in classes where she could do the work, viz: domestic art and dometsic science, and placing her with a tutor for special work. This arrangement worked so well, and she derived so much pleasure and benefit from her intercourse with the other students, that she was advanced year by year with the class.

For years she had been told or else overheard, for her

family were not careful about talking before her, that she was different from other children. Therefore, I endeavored always to impress upon her the fact that she was not unusual. Unfortunately, this is too true, for our schools are full of children who need special care just as much as Lena did.

One day she found a paper on the education of backward and defective children, and said, "That is what I am." Bearing this always in mind, I never corrected her or drew her attention to a short-coming, without prefacing the remark with the generalization that many people are so. For example, she was not observing, so picked up very little information. In drawing her attention to this fact, I said that many, many people in the world, never noticed what was going on around them and quoted several instances of such lack of observation. Then I gave Lena several problems to work out by observation, as, how does the motorman on the subway know when to start the train? Where are the electric cars made? It was astonishing the interest that she took in this work, and also, how she found in it a topic of conversation in her family, they being not much more observing than she.

One of Lena's difficulties was in telling or writing a connected story. She presented a perfect example of the psychologic term, total recall. If we went on an excursion, she could remember nothing. But when I began with the car we took, and proceeded step by step on the trip, all the incidents came back to her mind.

At the beginning of her course in domestic science, she found it impossible to write down the various steps she had taken in preparing her task. Her dislike for reading was extreme, perhaps because she found difficulty in following the connected narrative. When she entered the high school she was put into the brightest section of the first year English class.

This was done for two reasons, one, that she might hear and pick up bright remarks of others and, also, that she might realize that the liking for reading was not a peculiarity of adults but that children, too, delighted in books. How much of this she realized is a question, but one desired end she did attain. By the end of the year, she was able to write, in a clear, connected manner, what happened in the class room at a given time, and also, to put on paper, the proper receipts for her cooking processes.

I have spoken of the excursions that we took. One afternoon each week we went to some point of interest. For, true to a certain type of New Yorker, she was not familiar

with much beyond the shops and the theatres. Another day, we went to the school ball games of various kinds. All this, with the purpose of giving the child something to talk about and so making her more like the other children.

Her swimming lessons were another source of attraction. At first, she was much afraid of the water, never venturing into it beyond her waist line. By the end of the second year of these lessons, the third of her life in the school, she was able to swim. This achievement marked an epoch in her career. It meant not only the conquering of the fear of the water but a control of her muscles, for she was very lacking in muscular co-ordination.

But what of the results in terms of exact knowledge? Our aim had never been to teach her anything. We had simply aimed to teach her to conceal her ignorance, for there are many good and useful members of society who can think no better than Lena.

However, I tried to teach her to read, and to do enough arithmetic to make change and to carry on the usual routine of the housekeeper. This she learned. Also, in talking to her, I tried to let her know what words meant and what signs stood for. One day she was reduced to tears because I said her mother was an animal. But my real aim was to make her like other people, so that she would have a chance to display the really worthy traits in her character. At first she was very self-willed and stubborn. When she found it impossible to have her own way, she resorted to cunning and even to lies. At times, a dark, sullen look came on her face like a black cloud. We did nothing for this directly, except in trying to manage so that she never reaped the fruits of her cunning. As she grew more normal and happy in her school life, these traits left her.

Her cooking and sewing were a great aid in helping her to gain self-respect. She cooked little dishes at home and sewed various things for gifts for the family. In this way, she received the praise and recognition so dear to all of us. And with a glowing sense of power in accomplishment, she lost the desire to lie, and, with the feeling that we all trusted her, she outgrew her stubborn attitude and the black look vanished from her face. Her expression became animated and bright, she gave vent to the sense of humor she was endowed with, and it was difficult to tell how she differed from other girls.

I do not wish in anyway to assume all the credit for the regeneration of Lena. The first acknowledgment should be made to the wise principal of that model school, who planned

the whole campaign. Also to the psychologist and the doctor, who examined her and prescribed specific remedies; to the teachers of her various classes, who by their friendly attitude, helped toward the growth of self-respect, and to the great influence, although unconsciously exerted, of the many friendly children with whom Lena mingled. It is only from fear of giving pain to Lena and her family, that I hesitate to mention them by name.

My work was only part of many influences brought to bear on a backward child, and I record it simply with the hope that it may encourage others who are burdened in mind about so-called defective children. For Lena is not an unusual type, and much can be done along the same line, if only proper thought is taken, with any similar child, if she be placed under proper supervision.

SPARROW LANGUAGE (=JUNJUGHGEREN) THE SECRET LANGUAGE AMONG THE ARMENIAN CHILDREN

By Mesrob K. Jamgotchian

The secret, or the sparrow language (=junjughgeren)—as an Armenian child is accustomed to call it, is one of the interesting devices of the children in Armenia. Boys twelve to twenty-two years old use it; sometimes girls of the same age are familiar with it. I am personally acquainted with a girl of twenty-three in Worcester who speaks it as a mother tongue. The Armenian language lends itself readily to such devices. Every syllable includes a vowel and every vowel represents only one sound so that it is very easy to adapt to the alterations of a secret. The following examples will illustrate the method of alteration.

Where are you going? In secret language—"Who-jere a-jare you-jou go-jo-i-jing?"

I am going to school. I-ji a-jam go-jo-i-jing to-jo u-jus-choo-jool.

Come! let us go and play in the playground. Co-jome! le-jet u-jus go-jo a-jand pu-ju-la-jay i-jin the-je pu-ju-la-jay-gu-ju-ro-jo-u-jund.

From this illustration it is easy to see that it is not a new language, but the mother tongue disguised by a mysterious form and sounds. It is suggestive of the chirping of the sparrows from which it takes its name. The key of this secret is very easy to find. The skillful speaker separates immediately every word in the sentence into its component syllables and prefixes the j character to every vowel in the syllable whether the word is a monosyllable or a polysyllable.

It is my dog, becomes: i-jit (it) i-jis (is) mi-jie (my) do-jog (dog).

This is my teacher, becomes: thi-jis (this) i-jis (is) mi-jie (my) tea-jea-che-jer (teacher).

As is shown by these examples, when the word is a monosyllable and begins with a vowel, it is separated from its accompanying consonant and repeated alone and with the prefixed j accompanied by its following consonant, thus, it, is becomes i-jit, i-jis.

Diphthongs in a syllable are regulated in the following way. The consonant holds the first part of the sound while the introduced j carries on the whole sound of the diphthong as in tune, ti-june; misfortune, mi-jis-fo-jor-ti-june; dew, becomes di-jew.

When the boys of a gang suspect that either the members of their family or a stranger has become acquainted with the secret language, they are clever enough to divert attention by immediately substituting ch, gh, or z for j. In this way the language assumes a new character and practically becomes a new secret language, as in the following examples.

Did you suffer? No.

j. Di-jid you-jou su-ju-fe-jer? No.-jo.
ch. Di-chid you-chou su-chu-fe-cher? No cho.
gh. Di-ghid you-ghou su-ghu-fe-gher? No-gho.
z. Di-zid you-zou su-zu-fe-zer? No-zo.

The predatory life of the children inspires them to many activities. It is the group spirit which leads the members to suggestive discoveries

and often ingenious devices for the sake of the group welfare. The use of long words and exaggerated sentences is characteristic of the child in the predatory group. Such a child satisfies his instinctive tendencies by the invention of the sparrow language. It would appear as if the interests and duties of the gang were more binding upon its individual members than those of the family. And such is really sometimes the case when a boy is heartily devoted to the exclusive activities of the gang and carries on a secret life with them. He spends most of his time away from the home circle and very often neglects his filial obligations. When he is questioned in regard to his behavior, he either lies, becomes obstinate, or bluffs or makes excuses in order to escape punishment, and at the same time to keep the secrets of his society. But the children of a group are clever and resourceful enough to provide more natural and intelligent means of keeping their secrets. Every environment dictates peculiar devices of its own.

A SWEDISH STUDY IN CHILDREN'S IDEALS

By Albert N. Gilbertson

A new study of children's ideals appears in the current issue of the *Svenskt Archiv för Pedagogik,* from the pen of Georg Brandell, of the University of Upsala. It is based on an investigation which the author of the article made in the common schools of Gothenburg in September, 1911. His conclusions are founded on returns from 889 children, 474 boys and 425 girls, ranging in age from eight to fifteen years. Throughout his study he makes comparisons between his own results and those of the similar studies in London by Earl Barnes, in Newcastle, Pennsylvania, by W. G. Chambers, and in Göttingen, Germany, by H. H. Goddard. He expresses his indebtedness also to the writings of G. Stanley Hall, John Dewey, Irving King, Alfred Binet and William Stern.

In the investigation the following question was given to the children: "What person (man or woman) whom you have seen, about whom you have heard spoken, or about whom you have read, would you most like to resemble? Why?" The questions were printed on slips of paper and were distributed among the children. The teachers in whose classes the inquiry was made were furnished with strict instructions concerning the conduct of the investigation. I shall here present the most important conclusions of the author.

Of the younger children the great majority chose persons in their own surroundings, but these ideals were rapidly displaced by characters more remote in time and space. Girls chose local ideals to a greater extent than did the boys at all the various ages covered by the study, the percentages being 35.3 and 28.2 respectively. About the tenth year a rapid development takes place in the transition from acquaintances to other ideals.

Parents were chosen most frequently by children of both sexes at the age of nine, receiving the votes of 40 per cent. of those of that age. From that time their popularity steadily decreases. The father is chosen most frequently by the boys, the mother by the girls. Relatives other than the parents are chosen most frequently at the age of eight, other acquaintances are most popular at nine. The teachers are not popular as ideals among the children. They enjoy their greatest popularity with children of ten and eleven years. Chambers expressed his surprise that children to such a small extent choose their teachers as ideals. "One would expect that teachers, coming in constant and close contact with their pupils for a number of years and specially engaged in the development of their minds and characters, would stand high in the series of ideals. For some reason this is not true." Of the American girls 4.5 per cent. name a teacher, while only 1.5 per cent. of the boys make such a choice. The Gothenburg children were somewhat more favorable to their teachers, 2.3 per cent. of the boys and 6.3 per cent. of the girls voting for their teacher. Not a single boy over the age of twelve chose his teacher. The author does not state what proportion of the teachers in the classes studied are men, but in Scandinavia men still form a large proportion of the teachers in the elementary schools.

The Swedish children choose historical and public personages to a

greater extent than do the English and German. In this respect they are more like the American children. The percentage of the total number voting for persons in this class is 61.6, 69 per cent. of the boys and 53.4 per cent. of the girls. The Swedish children are more tardy in their transition to historical and public ideals than are those of any of the other three nationalities. This transition occurs in the case of the Swedish children chiefly at the age of ten. Historical persons form the most popular class of ideals. Their popularity increases steadily with the increasing age of the children. The boys choose their ideals from history more frequently than do girls. The historical characters chosen are almost exclusively Swedish. The very few foreign persons chosen were nearly all chosen by boys, who are disposed to go further afield for their ideals. Luther is the only historic character chosen by members of both sexes, namely by 0.4 per cent. of the boys and 0.7 per cent. of the girls. Six-tenths per cent. of the boys chose Caesar, 0.4 per cent. Columbus and Alexander the Great. Five-tenths per cent. of the girls chose Melanchthon. One of the Gothenburg boys chose Washington as his ideal. This boy, who was eleven years of age, seems to have lived in America as he wrote his answer in English. It read as follows: "George Washington. I like him best because he speaks the truth, and he has won the English war."

Gustavus Adolphus, the Protestant hero of the Thirty Years' War, is the great national hero, receiving the votes of 22.4 per cent. of the boys and 11.1 per cent. of the girls. His position is comparable to that of Washington among American children. The latter received 34 per cent. of the votes of the boys and 24.5 per cent. of the girls in New Castle. Gustavus Vasa, the liberator of Sweden, the next in order of preference was chosen by 7.6 and 4.5 per cent. of the boys and girls respectively. Both of these kings are most admired by children at the age of eleven; their relative popularity gradually decreases in the later years. John Ericson, the Swedish-American inventor, of "Monitor" fame, is very popular with the boys, being the ideal of 5.7 per cent. of the latter. He received the greatest number of votes from boys of thirteen, namely, 14 per cent. of those of that age. He does not receive a single female vote. This may be due to the much greater interest in inventions among boys. The fourth most popular character is Charles XII, the famous warrior-king.

People in contemporary public life are chosen more frequently in the later years than in the earlier. Selma Lagerlöf, the Swedish authoress and Nobel prize winner, is the greatest favorite among girls (14.8 per cent.). She is not named by any child younger than ten years. Edison received 1 per cent. of the votes of the boys. Mark Twain and President Taft each received the compliment of one vote. Sven Hedin, the Swedish explorer, is the most popular contemporary character with the boys (3.6 per cent.).

Kings and statesmen are more popular with boys than with girls. The latter show greater admiration than do boys for people distinguished in the arts of peace, who have not been kings. The votes for rulers are more than twice as numerous among the boys as among the girls (38.6 and 17.4 per cent. respectively). Twenty-six and eight-tenths per cent. of the boys and 34.8 per cent. of the girls voted for persons in exclusively peaceful pursuits. Warriors, who have not been kings, were not the choice of many of either sex, though they were chosen to a somewhat greater extent by boys than by girls. Rulers are most popular with children of eleven. Girls esteem, more than do boys, authors and artists. Even men of science are more popular with girls than with boys.

Characters from fiction are named to only a very small extent by the children, 3.2 per cent. of the total number. They occur three times as often with the boys as with the girls, 4.9 and 1.4 per cent. respectively. Americans will be interested to find that the author has placed our own Buffalo Bill under this head. He leads the list of favorites of this class. Col. Cody will be surprised to learn that he is a fictitious character. His nearest competitor is Robinson Crusoe. Texas Jack comes third. The writer of this review must admit that he is not sufficiently familiar with American literature to know whether or not the last-named worthy is correctly classified.

Girls choose Biblical characters more than twice as often as do boys, 9.4 and 4.2 per cent. respectively. The percentage for the total number of children was 6 per cent. Two and two-tenths per cent. of the boys and 4.9 per cent. of the girls said they would like to be like God or Jesus. Chambers found that 2⅔ per cent. of each sex expressed such a desire. Other American investigations show a somewhat larger number; but none indicate a pronounced interest in characters with religious associations. In Scotland, England, and Germany a higher percentage was found. In Edinburgh 7 per cent. of the boys and 13 per cent. of the girls named God or Jesus. Of the London children, studied by Barnes, the corresponding figures were 7 per cent. for the boys and 14 per cent. for the girls, while 4 per cent., chiefly girls, chose Biblical characters other than the Godhead. In a New Jersey investigation, also by Barnes, 4 per cent. of each sex chose the Godhead, but no one named other Biblical characters. In Göttingen 5 per cent. of the boys and 8 per cent. of the girls named God or Jesus, while Biblical characters were chosen by 2 per cent. and 7 per cent. respectively. In the present Gothenburg study no boys older than ten years named Biblical characters, human or divine; no girls older than thirteen. The curves for both sexes go downward, but that for the boys, which at first exceeds that for the girls, sinks much more rapidly.

Girls choose men as ideals several times more frequently than do boys women. While only 7.4 per cent. of the boys have named women, 44.7 per cent. of the girls choose men, a ratio of approximately 1:6. Similar results were obtained in other investigations, especially in America. Miss Dodds, for example, found that 34 per cent. of the girls stated expressly that they would rather be men than women. In England and Germany, the tendency for girls to choose men was less pronounced. In this respect the Swedish children more nearly resemble the American. Among the boys the disposition to choose persons of the opposite sex decreases in the later years, not a single boy over twelve years naming a woman as his ideal. On the other hand, among the girls this tendency increases with age, being more than twice as great at fifteen as at eight. Outside of female acquaintances, the only woman named by boys of any age is Selma Lagerlöf.

Uniformity in the children's choices is greatest from ten to thirteen years. At both earlier and later ages greater variation is shown. As an explanation of this phenomenon the author says, "It would surely be too bold, on the basis of the available material, to attempt to present an hypothesis concerning the cause or causes of the variability in the uniformity. The increasing uniformity might possibly be conceived as depending on the levelling influence of the instruction, and the diminishing uniformity after the age of twelve on the gradually progressing individualization of the child, which at the above-named age may have advanced far enough to make itself felt side by side with the levelling forces of the instruction. The low degree of uniformity among children of eight and nine may thus de-

pend on a certain planlessness in the choice of ideals, the decrease in uniformity after twelve, on the other hand, may be caused by the possible fact of the child's individuality now being sufficiently developed to exercise an influence on its choice. The leveling tendencies of the instruction may make itself most strongly felt between these two stages. It is clear, however, that the correctness of this interpretation may be strongly questioned. Further researches on this point are necessary."

Girls employ, more often than do boys, "the undifferentiated goodness" as motivation for their choice of ideals, 34.4 and 15.7 per cent. respectively. The disposition to use this kind of motivation decreases, however, with both sexes with increasing age, although it decreases somewhat slower with girls than with boys. The use of this so-called "undifferentiated goodness" has been interpreted as an indication of small development in the power of analysis; the different aspects of a personality are conceived as an indefinite whole. But the author does not regard this explanation and its application to the difference between boys and girls in this respect, as conclusive. The fact that clearly girls prize the goodness of people more than do boys, is a factor which has contributed to the difference of the sexes on this point. Not in all instances has mere goodness been given as the only motivation. In many cases, especially among the girls, one or more qualities have been named in addition to goodness in general, showing that the children may be able to differentiate, even when goodness is the chief cause of admiration. On the average about 11 per cent. of each sex uses this "undifferentiated goodness" as the *only* motivation.

Material considerations play a subordinate rôle in the choices of Swedish children. Less than one per cent. have motivated their choices with material advantages of one sort or another enjoyed by their ideals. This motivation is more frequent among boys than among girls. The English, Prussian, and American children valued material things much more highly than do the Swedish. In New Castle the percentage was 6, 7 for the boys and 5 for the girls. Our author comments on these figures as follows: "When we consider that these figures were obtained in investigations in the dollar-land, America, they must be regarded as extremely low." The English and Prussian investigations show larger figures. In London material advantages were named by 10 per cent. of the boys and 14 per cent. of the girls, and in Göttingen 14 per cent. and 5 per cent. respectively, came in this group.

Even social position, honor and fame are matters of small importance in the minds of Swedish children, 2 per cent. of the boys and one per cent. of the girls. A comparison with the results of other investigations are of great interest on this point. It shows that American and English children value "position, honor, greatness" to a much greater degree than do the Swedish. Of the last, only 2 per cent. of the boys and 1 per cent. of the girls come in this class. While in New Castle this motive appeared in 16 per cent. of the children, 18 per cent. of the boys and 13 per cent. of the girls. In London this was the motive of not less than 20 per cent. of the children. This type of motivation occurs to a greater extent among the boys than among the girls in all the different studies.

On the other hand, the Swedish children place intellectual and artistic qualities very high, higher than do English, Prussian, and American children. In Gothenburg 27 per cent. of the boys and 33.9 per cent. of the girls named these as their motivation. Only 3.5 per cent. of the boys and 6 per cent. of the girls in New Castle indicated this as the reason for their choice. In London this group comprised 6 per cent. of the children, in Göttingen 20 per cent. of each sex. All studies show

that girls have greater appreciation of qualities and activities in this field than have boys. Other investigators have found that this appreciation develops with increasing age. The same is true of Swedish children in a very pronounced way, the percentages for the age of eight being 2.8 for boys and 4.4 for girls, for the age of fourteen 43.4 and 62 respectively.

References to physical characteristics, such as an attractive appearance, etc., occur very sparsely, and then mostly at the earlier ages. The percentages for the total number of children are 2 for the boys and 1.4 for the girls. For New Castle, the figures are 2 per cent. for the girls and 1 per cent. for the boys. Greater importance did these qualities have for the English children, namely, 4 per cent. of the total.

Moral qualities were named by 12.4 per cent. of the boys and 22 per cent. of the girls. In Chambers' investigation in New Castle 22 per cent. of the answers were put in this group, a relatively larger number than is the case in the Gothenburg investigation. Other investigators did not place these in a separate class. Closely akin to this type of motivation is that expressed by a desire to help others. Motivation of this kind is most frequent among girls, 4.1 per cent., to 0.9 per cent. among boys. In New Castle the corresponding figures were 5 per cent. and 2 per cent. The results of other investigations point in the same direction. Our author therefore concludes that altruistic tendencies are stronger in girls than in boys. The figures do not indicate a development of altruistic sentiments with age. On the contrary, there is a rather steady decline in the case of the girls. The figures for the boys are so small that no conclusion can be based on them; only at the ages of nine, eleven and thirteen are there any in this class. It has been believed that the altruistic tendencies decrease about the age of twelve or thirteen. The results of the Swedish investigation do not contradict this view. Indeed, the percentages, for girls, are less at twelve and thirteen than at eleven and again at fourteen. They are twice as high for eight and nine as for fourteen. More light, however, is shed on the problem by adding all the motivation in which moral qualities are mentioned, namely, those dealt with under "undifferentiated goodness," "moral qualities" (specific) and "desire to help others." These combined curves show the moral standpoint employed more often by girls than by boys at all ages. "Equally clear does it appear," says our author, "that these purely moral standpoints steadily lose their power over the minds, the older the children become. It does not seem, however, that this fact should give cause for any pessimistic conclusions, for the moral standpoints are clearly displaced by others, which might be placed almost as high, such as intellectual and artistic, social and political." The curves for both sexes show an increase after twelve years, when they are at their lowest point. This fact seems in some measure to confirm the theory referred to above.

Social and political qualities and activities are more esteemed by boys than by girls, 13.5 per cent. and 7.7 per cent. respectively, and this at all ages, except the first, when they are equal. These figures are higher than those which Chambers obtained in New Castle, 4 per cent. for the boys and 3 per cent. for the girls. For Swedish children these standpoints seem to play a greater rôle than for the American. The curves indicate that the social consciousness is in a state of progressive development during school age.

Boys have greater admiration for military qualities and achievements than do girls, 31.7 per cent, and 10.6 per cent, respectively. This admiration increases with both sexes until the age of eleven or twelve, when

it begins to decline. In this group are included those answers which emphasize the devotion to the fatherland manifested by their military favorites. They depend, therefore, also on a social consciousness. Such could be considered as falling under social and political type. The Swedish figures are large, compared with the percentages Chambers obtained in New Castle, 18.5 and 2, for boys and girls respectively. The author adds this comment, "That the Swedish school boys to such a high degree admire military deeds and qualities, has its primary cause in inherent instincts. But these instincts are awakened and developed especially through the instruction in the history of Sweden, which to a large extent is a narrative of glorious victories, won by the Swedish arms."

Our author lastly calculates the number of points of view found in the answers. He finds that girls are richer in points of view than boys, a conclusion, he states, which he has arrived at also in other studies in child psychology. The superiority of the girls in this respect prevails at all ages. After twelve the curves for both sexes show a decided direction upward.

The author concludes his study with a consideration of the pedagogical significance of his results.

Referring to the fact that school children in the early grades choose their ideals from among people with whom they are personally acquainted, and later more and more choose from among people in contemporary public life and characters in history and fiction, "This is an expression of the growth of the personality together with a steadily progressing expansion of the circle of experience. That such a development is desirable, is beyond all doubt. If the children persistently chose their ideal from their immediate surroundings, it would indicate that their development was arrested, and that they possessed a direction of thought and volition answering to narrow provincial conditions and therefore would be without value for more highly developed culture. But," he goes on to say, "this is only one side of the matter. It is clear that this development should not take place with the greatest possible haste. It cannot be desirable that children should regard as ideals persons whom they are not in position to understand. The admiration they give them, thus comes to depend on the fact that they misunderstand them. It is certainly necessary to give the children personal ideals, but it should not take place before the children have reached the age in which they can conceive their real merits. Admiration for the great personalities must not be awakened in a mechanical way or exclusively by the aid of faith in authority. Such an admiration is external and artificial and leaves the child's volitional life untouched."

The author states as a general pedagogical principle, that "children at the earliest ages should look up to and have devotion for their parents, brothers and sisters, teachers, and others with whom they come in personal contact." This seems to be the presupposition for their being able really to raise up as ideals the greater personalities, whom they later meet in history and literature.

Speaking of the age when the transition should be made, the author states that we have not yet a pedagogical thermometer for the exact determination of this and most other problems of the science, depending as it does on so many factors of which we have as yet no definite knowledge. He refers to the fact that the studies in America showed that children of six, seven, and eight to a pronounced extent chose historical and public characters as ideals, must naturally be regarded as depending on the children's being led altogether too early into a

world, which only at a later age they are in condition to understand." He questions whether even Swedish children do not make this transition too hastily, especially about the tenth year. Even children of ten years may find it difficult to get any high degree of understanding of historical and public characters, and " it can be assumed that their indicated choice is in many cases not an expression of a definite volitional direction."

In this connection the author presents four curves showing the frequency of choice, by the New Castle children, of Washington and Lincoln, and, by the Gothenburg children, of Gustavus Adolphus and Gustavus Vasa. We get two types of curves. One type is represented by the curves for Washington and the two Swedish kings, which are very much alike, the second type by the curve for Lincoln. The first three curves all reach their culmination at the age of eleven, after which they decline, the Lincoln curve, on the other hand, rises pretty steadily and reaches its highest point at the last age studied. Concerning the first type the author thinks it necessary o inquire whether its rapid rise and fall are not causally connected. Barnes and Chambers have considered this question in the case of Washington. Our Swedish investigator agrees with their conclusion that Washington is impressed upon the children at an age when they ought to seek their ideals in their immediate environment, for when " the sugar coating " is worn off through later reading and experience, children turn away from their former idol. The same he holds to be true of the two Swedish heroes. The Lincoln curve he considers an indication of the more normal, truly idealistic development.

CHILD STUDY IN BOHEMIA AND MORAVIA

In a recent book entitled "Studies of School Children," Dr. Frantisek Čáda, Professor of Philosophy and Education in the University of Prague, gives a sketch of the beginnings of child study in Bohemia. The first recognition of its importance is to be found in two articles published in the Bohemian Pedagogical Review, "Komensky," in 1882, "A letter from the First Standard," by Y. Funticek, and "How to Popularize the Science of Child Study," by Jos. Klika.

In 1884, L. Pivóda translated from the Polish "Recent Advance in Education." In his article Dr. Hall's investigation on "The Contents of Children's Minds on Entering School," made in the Boston schools, was described at length. In the same year, a schedule of seventy-one headings for the observation of pupils was published by Y. Funticek.

A still more important movement was inaugurated in 1894 by Jos. Pavelka, who translated the book of the Polish psychologist, Professor David, "A Program for the Psychological and Educational Observation of the Child." In the twenty-nine chapters of this book, the author sets forth the results of experimental investigations in North America and in European countries, while the last three chapters give a summary of pedagogical researches in Bohemia and Moravia. Since this year, 1894, many Bohemian colleges have initiated courses in Child Study. In Pilsen a special inquiry with a hundred and sixty-eight rubrics was carried out by the teachers Boh. Bennes and Al. Bilek. The pupils of the first standard were studied by the director Jos. Simek and teachers Wil. Küller and Jos. Groh. In the Training College in Kr. Hradec courses were given to the students in the bodily and mental development of the child. Child study was also established as a regular course in the Training College of Brünn.

The Bohemian pedagogical reviews have since that time published many observations on children. Among these was an inquiry in regard to the concepts of children in the third standard of the Bohemian schools.

The best child studies have been published in the Bohemian Pedagogical Review, "Pedagogické Rozhledy." This is a monthly having fourteen sections, each with its own editor, and has been published for twenty-six years. Among the child studies published in this periodical are:—

In 1888, "The Bodily and Mental Development of the Child," by E. Formánek; "Sex Differences," by J. Kapras; "Studies of Pupils in the Secondary Schools," by F. Havlik.

In 1891, "Play and the Mental Development of the Child," by J. Kapras.

In 1893, a review of the translation of Professor David's book, in which A. Svoboda called attention to the progress made in psychology through methods of investigating school children, and a proposition was made to establish stations for pedagogical research. He made a plea in this article for individual biographical records of children before school age. These records should be kept in the pedagogical archives of each school.

From 1888 to 1897 there have been published reports of the child studies made in other countries by K. Lange, G. Stanley Hall, S. Berthold, A. Rude and others.

In 1898 were published a review and epitome of Baldwin's "Mental Development in the Child and the Race" and reports on the pathology of children from French, Russian and German reviews.

In 1899 "The Necessity of Experimental Investigation for Ascertaining the Principles of School Hygiene," by Jos. Cerny.

In 1900, "Measurement of Mental Phenomena," by V. Krcek, and a translation of Sully's "Psychology of Childhood."

In 1901, "Hygiene of Attention," translated from the Russian.

In 1902, Preyer's "Mind of the Child," translated by J. Zeman, Perez' "The Child," translated by V. Cerny, Ebbinghaus's "Experimental Psychology," and James' "Psychology."

The systematic guidance of child study was established in this review, Pedagogické Rozhledy, by Professor Cáda in 1903. A study of children's drawings was undertaken under his direction. His energy and skill inspired many zealous workers and made this section the center of the review. Many original articles, reviews and notices of American, English, French, German, Italian and Russian books have been published in this section during the last ten years. Contributions by the editor himself are: "A Study of the Speech of Children," 1905-07, and "Pedagogical Studies of School Children," 1910-12. Other contributions are: "Pedagogical Investigations in the First Standard of the Elementary School in Krasna," by Mil. Silhan, 1908; "Environment of Children in the Elementary School in Doksany," by V. J. Rehák, 1907; "Study of the Valach Child," by V. Mrihlad, 1907; "The Investigation of School Children by Teachers," by Dr. T. Janek, 1908; "The Slovak Child," by F. Bobek, 1909; "The Child and Nature," by F. Hajn, 1909; "An Investigation of the Children in the First Standard of the Practice School in the Training College in Kr. Hradec," by V. Küller, 1908-10; "The Perception of Colors by School Children," by F. Kotoun, 1910; "A Contribution to the Perception of Colors by School Children," by L. Novotny, 1910; "Child Study Schedules in the Hands of the Teacher," by J. Veprek, 1910; "Children's Abilities," by Jos. Kubálek, 1911; "The Bohemian Child at Tesin (Silesia)," by F. Prazák, 1912. "Child Study in the Training Colleges," by J. Kubálek, 1910; "A Sketch of Child Study in the Training College at Brünn, by Jos. Sustal, 1910; "Children's Drawings in a Moravian Slovak School," by J. Hodek. 1912; "The Bodily and Mental Condition of the Child of Six," by J. Kubálek, 1912.

The following investigations were made in Bohemia: "Contents of Children's Minds," made on the basis of Dr. Hall's schedule, with 119 boys of the first standard. In Prague a study of 232 girls and 42 boys was made by Professor Cáda. The experience, knowledge, habits and behavior of his pupils, both at home and in school, were observed and recorded. The children had no knowledge that they were under investigation. Materials were obtained in the regular course of school work through compositions or through questions, and each child's record was preserved throughout the year. There were some two hundred headings used in the schedule.

In the year 1910, an association of child study was established in Prague. The educational committee of the city council of Prague voted a sum of one hundred dollars for the new institution.

In addition to the books and articles already mentioned, the following books were published in the Bohemian language:

G. S. Hall, Ph. D., "Selected Essays on Child Study," translated by J. Mauer.
Fr. Cáda, Ph. D., "Hyn's Psychology."
Ot. Kádner, Ph. D., "Contributions to Experimental Pedagogy."
Fr. Náprstek, "The Child and His World."
Rud. Neuhöfer, "Introduction to Child Study."
J. Sully, "Child Study," translated into Bohemian by Telcl.

EMANUEL LIPPERT.

REPORT OF THE BOHEMIAN NATIONAL COMMITTEE FOR PROTECTION OF CHILDREN

It is only within the last decade, that the care and protection of the child has attracted the attention of the Austrian public. There were already in existence many institutions for the care of children, but since the celebration of the fiftieth anniversary of the reign of the emperor Francis Josef I the public has begun to recognize the need of organization of that care and protection.

The movement for child protection in the kingdom of Bohemia resulted in an organization, created by the committee of the national parliament. The law of 1901 made a great improvement in public care for destitute and neglected orphans by giving the administrative surplus of the orphans' treasuries for the above mentioned purpose for ten years. In this way the nation obtains about 600,000 crowns (= 60,000 dollars) yearly and from this fund more than 5,000 orphans are cared for and educated. The children are placed either in families or in some institution. (There are about 100 private institutions for the protection or education of deficient children in Bohemia.) In each district there was established an orphans' council especially for inspecting the children located in families.

The first Austrian congress for protection of children, held in Vienna, (1907) showed clearly the need for more energetic protection of children in the empire, which in this respect was far behind England, France and Switzerland. Therefore a central Austrian council for protection of children was founded in Vienna and at the National School Council committees for protection of children were established. The Bohemian National Committee recognized that great numbers of the bodily and mentally defective, destitute, neglected and delinquent children were insufficiently cared for, because of lack of organization, to keep records of the children and coördinate the institutions already at work. The first president of the B. N. C. was Fr. Count Thun, LL. D. After a year he was appointed viceregent in Dalmatia and then Fr. Cáda, Ph. D., Professor of Philosophy of the University of Prague was elected to the presidency in acknowledgment of his great services in the work of the Committee.

In examining the results of the B. N. C. during the past 3 years one must acknowledge, that a remarkable piece of social work was performed: The organizing of the Committee for Protection of Children aroused a powerful movement in this direction so that in each district an association was founded, which ensured active coöperation between the public organizations for the protection of the child and private beneficence. Thus 82 district Committees for child protection were established. The B. N. C. is in constant communication with these Committees. The work is thus divided: The district committees undertake the care of the *poor* young people in their districts.

The B. N. C. in first rank cares for the children having any *special deficiency*. But in second rank the B. N. C. has already supplied for 3,000 children aid and care from persons or communities. Last year, a detailed scheme was elaborated, for the inspection of the children and examination of the requests for public help demanded for a child. A great part of the work of the B. N. C. was expended upon direct care of the children. In the year 1909 the B. N. C. cared for 69, in 1910 for 271 and in 1911 for 433 neglected, mentally or bodily deficient children. Children, who need special medical and pedagogical superintendence, are placed in a colony of the B. N. C. There are now seven such colonies (Uhrinevěs with 20, Kamenice with 13, Lysá with 14, Cistá with 9, Jílové with 26, Klikovice with 10 children and Postupice with 2 rachitic children). Among the colonies and institutions are: 1. A colony for 8 epileptic children in Ustí nad Orlicí, 2.) a day refuge for 50 children whose parents are employed during the day in mines, and 3.) a refuge for inexperienced apprentices coming from villages in the capital of Prague. Already in the first 2 months 31 boys have been cared for and now all 50 places are continually occupied.

For deficient children the B. N. C. establishes much needed institutions. Up to the present time there have been founded: 1. House of education for 50 slightly mentally abnormal children (the first institution of this kind in Austria-Hungary) in Kr. Hardec; 2. a house of education for 50 destitute children (25 boys and 25 girls) in Jilemnice. The cost of the building was 70,000 crowns (7,000 dol.); 3. a hospital for incurable children or for children with many defects, who until now have vainly, sought a refuge. For this purpose a building costing 210,000 crowns was purchased.

In institutions of other beneficent associations the B. N. C. has 35 children.

The industrial section of the B. N. C. is also establishing club rooms for young people employed in trade. Other sections of the B. N. C. are: Legal section with a consulting room for giving advice according to the laws, a medical section for medical inspection of the children. This section also mediates placing of sick children in hospitals and provides courses for care of nurslings and babies. The pedagogical section has an active propaganda for modern pedagogical problems and inspects the education of the children under its wardship. The social political section has proposed schemes of needed laws and have assumed charge of increasing the number of general guardians. These have been appointed in nearly all the 82 districts.

A genuine reporter of the work of B. N. C. is the review "Ochrana mládere" (Protection of young people) published by an editorial council of 6 officers of the Committee. The balance sheet of the B. N. C. of the year 1911 shows 321,828 crowns of assets and 223,400 crowns of expenses. The collections arranged with permission of the School Board among the scholars of elementary and urban schools yielded 67,716.42 crowns (21 per cent. of all assets). The jubilee day of the emperor (2. December) is given each year as a holiday for festivals and entertainments of children and all gain from these entertainments is collected for the B. N. C. In the year 1910, among 1,077 members of N. B. C. 348 were teachers and 154 school officers (also 502 members = 47 per cent). This year there are 1,638 members. Of 28 officers of the association, 5 are teachers from elementary and urban schools.

As a specimen of the 82 district Committees for protection of children I quote the Committee of Zirkov. This has: 1. pedagogical.

2. managing, and 3. helping section. There have been established 2 colonies for 7 orphans in Radesovic and for 8 orphans in Rican. In December 1910 a refuge for 120 school children was opened in the eastern part of the town Zirkov. In the year 1910, 621, and in year 1911, 276 children received boots and garments. Many lectures were delivered for parents in regard to hygiene of babies and good and bad reading for children. The Committee also arranged many cinematograph representations for school children. Many members inspected the fatherless children cared for by the B. N. C. The general guardian defended the rights of these children (in 1910 there were 128, in 1911 180 such children). For the year 1912 and 1913, it is proposed to establish a crêche and a reading room for school children in the town Zirkov.

The balance sheet of the Committee is this year: assets 10,448 crowns and expenses 6,795 crowns. Among 324 members there are 120 teachers (37 per cent), although the teachers form only 0.2 per cent of the town inhabitants. Among 29 officers are 7 teachers.

EMANUEL LIPPERT.

BOOK NOTES

The Rhodes Scholarship, by GEORGE R. PARLSIN. Boston, Houghton, Mifflin Co., 1912. Pp. X + 250.

The subject of the Rhodes Scholarships has at last received its due meed from the man, or rather the two men, who are uniquely equipped for such a task—Dr. Parlsin, the Secretary to the Rhodes Trustees, and Mr. F. J. Wylie, their Oxford Secretary. The former has been more concerned with the scholarship scheme in the larger phases, while the latter, previously a tutor and fellow in one of the Oxford colleges, has had a personal and intimate acquaintance with every Rhodes scholar who has gone to Oxford. The subdivision of the task is, therefore, a particularly happy feature of the book, and one does not know whether to be more grateful for the chapters that deal with the broader phases of the scheme or with those on *The University System* and *The Social Side of Oxford Life,* which give us the educational and social atmosphere of the scholar as could be done only by an Oxford man who brings to his task the points of view of strangers who come from around the globe.

Since the scholarships became realized possessions there have been articles and criticisms innumerable about the recipients, most of these aimed at the American Rhodes Scholars. Some have been just; some have been beside the mark, aimed at the scholars but criticising not so much the individual men as the educational systems which produce their type of scholarship; some, again, have been premature, as, for example, when the failure of the American Rhodes Scholars to 'make good' after their return to this country was heralded in one magazine of good standing in the spring of 1907. Several scholars who received appointments in the winter or spring of that year were warned of the danger of coming back, as their predecessors had done, unfitted by three years of Oxford for the duties and privileges of American citizenship. Presumably, neither the magazine which published this article nor those who drew their warnings from it, were aware that at that time the first appointees from America were still resident in Oxford, their three years' tenure not expiring until June, 1907. Not a few of the subsequent criticisms have been as glaringly premature, not to mention those which have been ludicrously misdirected. No one should suppose that the scheme has been tried long enough to test its successful working. The oldest Rhodes Scholars have been away from Oxford less than six years, and we need not be frightened by the critics' assurances that these returned scholars have not yet revolutionized thought and affairs on this continent.

We are grateful for a treatment which takes us straight to the heart of the Rhodes Scholarships; which gives us the motives that induced an empire-builder and one of the most colossal 'practical' men of affairs and action to give a large part of his life endeavor to the educational scheme which he considered worthy of his fortune and his faith. The dream was his; the realization is ours if we can rouse ourselves to the loftiness of his imagination. The lack of interest in the scheme, the prevailing ignorance about the conditions and possibilities of the scholarship, the ignorance of how

much Oxford can mean, and of how much in addition to Oxford a Rhodes Scholarship can and should mean, is sad testimony to the fact that we have not yet awakened to the grandeur of the possibilities which are offered to the college men of America as well as to those of Germany and of the British Empire.

W. D. WALLIS

Die Bedeutung der Psychologie für die übrigen Wissenschaften und die Praxis, von K. MARBE. Fortschritte der Psychologie und ihrer Anwendungen, 1912, vol. 1, pp. 5–82.

This article forms the *pièce de résistance* of the initial number of the new journal edited by the author,—*Fortschritte der Psychologie und ihrer Anwendung.* It is essentially a plea for wider recognition of the importance of psychology, in view of the significance which this science has for other sciences, both pure and applied. Without attempting to treat exhaustively the relations of psychology to other sciences, Marbe aims to point out certain definite ways in which knowledge of the facts revealed by modern psychological investigation would be useful to the natural scientists, the student of medicine, the philologist, the aesthetician, the historian, the pedagogue, the student of jurisprudence and national economy, and to the philosopher.

In astronomy, mathematics, and physics, consideration should be given to errors of space and time, and to inaccuracies resulting from the 'personal equation.' The fact of the predeliction for certain errors is significant for any observational science, and also for mathematics, in that it undermines the assumption of the Gaussian theory of errors, that all errors are equally probable. The whole question of the reaction-time and its influencing factors is of vast importance to observational science. Moreover, as difference sensitivity is greatest at medium intensities, it is desirable that when stimuli are to be compared, those of medium intensity be selected. Blondlot's alleged discovery of the n-rays rested upon illusions well known to the psychologist.

For the ethnologist and anthropologist, the exact methods of modern psychology are valuable in the investigation of the mental life of primitive man, as Myers and Rivers have shown.

In stethoscopy, certain errors of audition, such as the overlooking of weak sounds just before, and especially just after, more intensive sounds, must be considered. The relation of psychology to hygiene appears nowhere so clearly as in the employment of psychological methods of investigating the effects of fatigue. In psychiatry, the importance of psychological methods for the diagnosis of mental diseases is apparent in the work of Sommer, Jung, and others; moreover, their importance for the investigation of the peculiarities of the abnormal mind is unquestioned. Pick has long been engaged in explaining mental abnormality in view of the similarities to normal life which it exhibits, regarding many pathological activities as retardations or exaggerated developments of normal mental phenomena. The psychiatrist who lacks knowledge of normal mental phenomena is in much the same position as a physician who studies pathological structures, without knowing his normal anatomy.

For the science of language, philology, and the literary sciences, psychology is of marked importance. Child psychology, in the parallelisms it reveals between the development of speech in the child and in the race, can throw much light on the origin and development of speech. The method of introspection has gone far in clearing up the relations between speech and thought, and the question of the

understanding of speech. The discovery of the fact of preferred associations, especially those revealing psychological connections between words analogous in speech usage, is significant for the investigation of speech analogies. The philologist may obtain great assistance in the evaluation of ancient manuscripts, and in avoidance of impossible conjectures, from knowledge of the errors commonly made in copying. The question, moreover, of literary style is a psychological one; so, too, is that of the aesthetic effect of language, depending as it does upon the rhythm of the text, the dialect, and the rate at which it is read, on the objective side, and upon mood, on the subjective side.

Especially important for the historian is the psychology of testimony; for him, also, the fact of the uniformity of mental processes under similar conditions is significant. The historian, depending for his sources upon spoken or written testimony, ordinarily assumes that coincidence of two independent accounts of an event establishes its historicity. This assumption it appears is not justified, for often the same error is made by several individuals in describing an event. Investigators of the psychology of testimony have pointed out a number of specific tendencies to falsify in description; and the changes which occur in repetitions of description are well known. Again, realizing that mental phenomena in different individuals under similar conditions show a marked uniformity, the historian will understand that similar development in different peoples does not necessarily mean interdependence in that development.

Both child and adult psychology are of service to pedagogy. Psychological tests of the effects of different systems of education are essential. Training must be adjusted to the child's development; in order to accomplish this the mental equipment of the child at different ages must be understood. Studies of memory and learning are of obvious importance.

In jurisprudence, such questions as those of fixing responsibility of contracting parties, or of criminals, are closely bound up with the psychology of the will, and factors which influence it,—unconsciousness, alcoholism, emotion, and suggestion. For determination of guilt, there is the *Tatbestanddiagnostik* of Jung and Stern. The psychology of testimony, again, and the effect of questioning, are essential for proper evaluation of the statements of a witness. For national economy, the discoveries regarding the work-curve, and individual work-tempos, which if followed result in increased efficiency, are important. There are indications that psychology may, in time, be useful in determining the profession most suited to a youth.

For critical evaluation of past philosophical systems, and for the construction of new ones, the findings of modern psychology are absolutely essential.

Marbe concludes with a brief sketch of the consideration given psychology in examinations for professorships and the professions of medicine and law; he finds that the official recognition accorded is by no means in keeping with the importance of the science, and recommends courses in psychology for professional students. Such courses would necessitate improved facilities for psychological instruction in the universities, only two or three of which (in Germany) possess at present adequate psychological departments.

The bibliography, given in foot-notes, numbers nearly 400 titles; it includes accounts of the psychological investigations along the different lines mentioned as significant for various sciences, and of contributions directly concerned with the relations of psychology to some other discipline. Although the author's zeal leads him occa-

sionally to overestimate the present applicability of different branches of psychology (for instance, the treatment of the *Tatbestanddiagnostik*), this does not militate seriously against his main position, that psychology offers to workers in other fields both aid, and means of avoiding error.

S. C. Fisher

La simulation du merveilleux, by P. Saintyves. Paris, Flammarion, 1912, pp. 387. Preface by Pierre Janet and bibliography on the cures at Lourdes.

The author divides his material into three heads: simulated diseases; simulation of supposed supernatural morbidities; simulation of miraculous cures. The first includes diseases simulated by beggars, neurotics, hysterical persons, etc.; the second, spiritism in its various forms, occultism, demoniac possession, false ecstasies, fastings, prophecies, stigmata, pregnancies, etc.; the third, various forms of miraculous cures, the cure of simulated diseases, and the pretended cure of a disease already cured. Here especially the cures at Lourdes are discussed, and one of the most celebrated cases, that of Pierre de Rudder, which was officially sanctioned only four years ago, in 1908, is classified as a pretended cure of a disease already cured. This section is especially interesting as showing the character of the evidence accepted in investigating a cure here, the testimony of various witnesses being quoted at length.

The book should serve a useful purpose in putting people on their guard against all claims to the supernatural; if science has advanced, the industry of simulators has done likewise, and the more marvelous a phenomenon appears the more severely should it be tested and verified. The motives for simulation are not always apparent, nor are they always such as would move the normal man. So much the more therefore, should the person laying claims to supernatural relations be tested by psychological experts and alienists, as well as by men of science, the laity and the faithful. The reader should note that Janet in his Preface takes exception to the author's classification of certain apparent neurotic and hysterical simulations along with the other frauds. He does not believe these patients so simple nor so culpable morally. Indeed, it also seems as if the author in his discussion of mediumistic phenomena, hardly does full justice to the morbidity of the subjects. He asserts that there is always a memory of the mediumistic state in the normal state—which certainly has not been demonstrated but is much open to question. The same is true of his discussion of mystics and ecstatics, and accordingly he attaches greater importance to the part of fraud in founding religions than most people would. The central persons in such movements he seems to consider chiefly deceivers, or else deceived and taken in hand by some shrewd deceiver who uses them to his own advantage. But some of the cases would appear to disprove his own statements, as in spiritism. Every one knows that the Fox Sisters confessed their deceptions—but did that injure spiritism? Again and again mediums are exposed or confess, but the belief persists. It has a deeper basis than the objectivity of facts about which lies are possible, just as to-day Christians are beginning to realize that Christianity has perhaps a deeper basis even than the historical existence of Christ. One is tempted to a figure of speech. To the average, healthy minded person who has dabbled a little in spiritistic and other present day superstitions, they come to seem like malodorous, gangrenous cancers in the minds of their

victims. At present the only known cure is surgery, and this must come in the very early stage to be efficacious. Like cancerous tissue, they can be transferred from one mind to another, and become more virulent with each transfer. Their very persistence, vitality and rapid multiplication show what a primitive and low form of mental life they are.

But the fact that we as yet only theorize as to their origin and can hardly at all control their growth and spread should make modern science and religion ashamed. Can not their vitality and endurance and power of growth be used to make healthy social tissues instead of cancers? AMY E. TANNER

Le langage graphique de l'enfant, by GEORGES ROUMA. Misch et Thron, Bruxelles, 1912, 304 p., with numerous illustrations and bibliography of nine pages.

Dr. Rouma's study of this subject began in his collaboration with Karl Lamprecht in collecting large numbers of drawings in order to show the parallel between individual and race development. He came, through these studies, to believe the similarities between the two superficial and the differences deep, and also to believe that drawing is a most valuable indication of the mental condition of the artist. Accordingly he obtained still more material and has published the results in this volume. Incidentally he summarizes most of the other work done in this line.

His own method of obtaining material was that of watching the children drawing under various conditions. Sometimes they chose their own subjects, sometimes had them assigned. Their remarks were noted on the paper, and both normal and feeble minded children were observed.

Before drawing proper begins there is a preliminary stage of adaptation of the hand to the pencil. The pencil is grasped in the whole hand, the point perpendicular to the paper, and the lines are usually dim and short, running in all directions. In abnormal children this may last for months, but in normal the lines soon grow blacker and longer, and urged by those about him to draw a picture, the child begins to attach names to his scrawls, without seeing any likeness or being able later to remember what he called them. First he accepts suggestions from those about him, and then himself enunciates what he intends to do. All this is purely arbitrary until he chances to see a similarity between his scrawls and some object, and then first his drawing may become true drawing at times, though with frequent lapses to the earlier stages. This occurs between the second and third years usually.

Rouma next takes up in great detail the stages in drawing the human figure. After the preliminary stage, follow Sully's tadpole stage, and the drawing of the man full face, with gradual inclusion of the various details. The transition from full face to profile comes later and is made with difficulty, with various combinations of the two. Animal drawings are naturally usually profiles, and follow in general a development like that of the human figure. Birds are drawn relatively little.

Comparing with primitive people, Rouma says there is no preliminary stage with the latter, for adults have naturally had sufficient practice to handle the pencil and to see resemblances. We do find all the stages in drawing the human figure in the collections of savage and primitive drawings, but also great differences among individuals, some far excelling children. We then have the difficulty of determin-

ing the average for the tribe, and are likely to fall into absurdities if we judge the civilization by the drawing, because a people may be highly developed industrially and little developed as to drawing.

In the beginning there is complete lack of proportion between the parts of the child's drawing. New and interesting details are exaggerated. Attempts to represent movement mark considerable advance. At first the child does not draw it, but acts or describes it as he draws. Then it is represented by some part, like an arm, unduly prolonged to meet another part, and somewhat later, the child tries to note how a moving leg or arm looks, and to draw it in the position. Here we pass from drawing language to visual representation, an important transition. For some time this may be tried only with one object, and the results may vary greatly. Sometimes a series is drawn showing successive stages of the movement.

Among the difficulties of the child is that of orientation, placing the objects in right relations to each other on the paper. This he has to learn, and in learning he may turn the paper round in drawing, draw objects upside down, etc. Perspective is still harder. The child naturally tends at first to draw what he knows rather than what he sees, and when he begins to appreciate the difference, he produces hybrid combinations. The transition usually occurs between 7 and 9 years. At first objects are thrown in helter skelter; then there is a tendency to group them along a straight line, all the objects being perpendicular to the point of view; the child attempts to indicate the relation between various parts, as if he had made the drawing from several viewpoints; and finally the child tries to get true perspective, aided by pictures, but very few get any satisfactory results without instruction.

Considering drawing as a language, we have already noted the indicative stage, and the representative stage, and referred to the tendency to complete the drawing by words and actions. With greater technical skill and more sustained attention, this tendency is favored and may become true acting. On the other side, it leads to simplifying the drawing, reducing the details in drawing the man, selecting characteristic or symbolic details and exaggerating them, all this of course leading to a conventionalizing of the drawing, and this just in proportion as the child narrator is imaginative, and quick in thought. Here too we get what Barnes calls fragmentary thinking, but which Rouma thinks is rather fragmentary drawing only, the thought appearing fragmentary only because the spoken or acted narrative which went with the drawing has been left out.

Rouma attaches great value to drawing as an indication of the mental development, when all the spontaneous drawings are preserved so that the changes in the course of a year can be studied. He believes that a regression to an earlier type should lead us to call in the physician, and that the mental instability and slow advance to higher stages are indicated in the drawing of mentally disordered or feeble-minded children. Similarly he believes it a valuable index of the normal and disordered imagination, the sense of humor, and the moral environment.

The behavior of the child while drawing is also very suggestive. The strong visualists, who have also a certain degree of skill, show every sign of strong attention, erase much, and work in silence, but most children talk freely while drawing, and oscillate from one design to another, and the few motiles act out the parts of their rigid and stiff figures. When they meet difficulties in the drawing, they may either avoid them by making another turn to the story, or laugh at their grotesque drawing, or observe carefully, and con-

tinue attempts to get a better drawing. If their attention is called to a fault, they may either correct or justify it.

On the side of technique, children begin by grasping the pencil in the hand without using the thumb; some use both hands indifferently. The part first drawn is usually what they think most important, but often there seems no reason for the order followed.

The development of voluntary attention shows very nicely in the series of drawings of a child. It progresses from the vague to the definite, and along with the adaptation of the hand to definite movements goes a tendency to automatisms, which leads to the curious mixtures of full face and profile, etc. In some instances, instead of later adaptation occurring, the automatism increases, the idea drops out, and the drawing degenerates to a lower stage. In other cases, the child is pleased with the result, and repeats it many times for the mere pleasure.

In conclusion, spontaneous and free drawing is a most valuable aid in mental development, and should be wisely encouraged, not forcing the child prematurely into technique or to subjects foreign to his interests, but employing it as a language closely bound up with speech and music. AMY E. TANNER

Folk Festivals, Their Growth and How to Give Them, by MARY MASTER NEEDHAM. N. Y., B. W. Huebsch, 1912, 244 p. Bibliography of four pages.

This book should be very serviceable to teachers in showing them how to set about preparing for a folk festival and what subject to choose, when the pupils are the participants. The book is very concrete, giving many illustrations of what the writer has done, the difficulties involved, the effects on pupils and parents, and the educational possibilities in such work. The range is shown by the chapters: the pioneer festival, the spirit of the festa, our festal heritage, choice of subject, festivals in connection with playgrounds and schools, and the psychological effects. Out of folk art has grown fine art. In the folk tale, dance and play there is the recognition of truth and the basic things of life that are the source of great literature and art. Not only that, but the folk festival helps the participants to become free and so creative, prolongs mental and emotional growth, breaks down barriers of race and class and so makes for a greater democratic unity. AMY E. TANNER

Nervousness of Young Girls. MARGARETA DÓSAI-RÉVÉSZ. *A. Gyermek:* The Child, Official Organ of the Hungarian Society for Child Study, Vol. VI, 1912, No. 2.

Nervousness is a condition which presents many symptoms and appears under different forms in adolescent girls. Usually the ailment manifests itself through headaches, aural hallucinations, and uncertainty of mind, or lack of steadiness of purpose. In other girls the somatic manifestations include palpitation of the heart and pains more or less pronounced along the vertebral region. Such girls have restless nights and nightmares. Their intellectual life is subjected to sudden changes; the girls are said to be 'of many moods.' This symptom is rather characteristic. It serves to distinguish the psychic condition of nervousness from purely physical ailments.

The contention is made that the nervous system of woman is more 'sensitive' than that of man from the earliest stages of life. This sensitiveness is increased later, on account of the peculiar function

of woman's organism. It is not necessarily a weakness though the sensitiveness may lead to weakness, if abused. Woman's peculiar sphere of activity and duties often react detrimentally upon her nervous system.

During certain periods, peculiar to her sex, woman always presents certain nervous symptoms. At such times her physical energy and her nervous resistance are diminished even under the best circumstances. With the advent of maternity her system undergoes a still greater depletion of energy. Many of the nervous symptoms in the adolescent girl are due to the abuse of imagination along the lines of her future vocation as a housewife.

Whatever a young woman may be trained to do, her education should be conducted along lines best calculated to conserve her physical and psychic forces for the maternal rôle she is to assume in life.

The teacher's health; a study in the hygiene of an occupation, by Lewis M. Terman. Boston, Houghton, Mifflin Co., c. 1913. 137 p.

Medical directors often find teachers afflicted with tuberculosis, asthma, deafness, defect of vision, neurasthenia, mal-nutrition, heart disease, anaemia, and other troubles. Although warnings have been sounded in various times and places, medical inspection in the schools is still chiefly for the benefit of the pupils. It was natural if not inevitable that they should have the first attention, but it is fortunate that of late the health of teachers is receiving its due share. The writer here attempts to summarize the most important investigations that bear upon the hygiene of teaching and seeks to make certain contributions toward the conservation of the teacher's health by pointing out the sources of danger with suggestions for a better personal hygiene. He would also waken administrators to the desirability of concerted action to keep up the tone of the profession. He first states the problem, then mortality rate and physical morbidity. Then follow tuberculosis and the teacher, the teacher as neurasthenic, the margin of safety, health suggestions for the teacher, the hygiene of character, responsibility of the normal school, and then a bibliography of twenty-six titles on the teacher's physical health, twenty-five on mental health and the hygiene of character, and finally a list of fifteen best books on personal and mental hygiene, especially selected for teachers and students.

Psychology and industrial efficiency, by Hugo Münsterberg. Boston, Houghton, Mifflin Co., 1913. 321 p.

This book, we are told, although not a translation, corresponds to a book of the author which recently appeared in German. He tells us that "the essential substance of the two books is identical." After an introduction treating applied psychology generally, the demands of practical life, means and ends, the first of the three parts treats the best possible man, discussing vocation and fitness, scientific guidance, management, methods of experimental psychology, the author's experiments in the interests of electric railways, ship service, telephoning, contributions from men of affairs, individuals and groups. The second part treats the best possible work, under which fall such captions as learning and training, the adjustment of technical to psychological conditions, the economy of movement, experiments on monotony, attention and fatigue, physical and social influences on the working power. The third part, entitled the best possible effect, treats of the satisfaction of economic demands, experiments on the effect of advertising, display, illegal imitation, with final

chapters on buying and selling and the future development of economic psychology.

We regret that the author still adheres to his avowed policy of almost utterly ignoring all the literature in this vast field, so that, as in his "On the Witness Stand," the reader who makes his first acquaintance with the subject through this rather popular book might easily think the whole thing the author's own creation, while those who want to pursue the different lines further would have no guide. This method we do not consider in accordance with the good customs of modern science, to say no more. In the next place, the author makes what the writer of this review deems very extravagant claims for his science and for his tests in these fields. This is all the more regrettable in view of the author's early, many condemnations of about all applications of psychology, which suggests the perfervid zeal of late converts to make up for early faults and remissnesses. But third, the real core of the book, and about the only part where the author has sought to make additions and by which the value of his work must be judged, is the actual tests he has devised for street railway employees, telephone girls, ship service, etc., together with some parts of the chapters on advertising, display, and illegal imitation. Here we are given to understand that business men most deeply concerned have given hearty and almost unreserved commendation of the services of the tests applied. This of course is the chief question, whether psychology can actually help industry in this way. If it can do so, industry, being the occupation of most of the intelligent men of the civilized world, will owe it an immense debt. To analyze industrial processes to their elements would be of itself a great achievement and then to devise real and standard tests for efficiency in all of them would be a boon to the world, but we are not convinced that the author has succeeded nearly as far as he thinks in either of these processes, although we heartily grant that he has made a very valuable and indeed a most stimulating contribution which merits the serious interest of all psychologists who are not too entirely absorbed in introspection to be concerned with practicality.

The principles of science; a college text-book, by WILLIAM FORBES COOLEY. New York, Henry Holt & Co., 1912. 245 p.

This book is divided into three parts: 1. treats of methods, including the character of scientific knowledge, motives, principles, positivism, scientific analogy, criteria of truth; part 2. is empirical principles, such as matter, quantity, energy, law of evolution; 3. basic principles, rationality, the external world. The author defines his little book as an "attempt to bridge the chasm" between scientific and philosophical studies. For our part while we believe it is very important to acquaint philosophers with even the general principles of science, we cannot for one moment believe that this way of approach for young people of college age is the right one, but believe it rather the reverse of true. Science is empirical and should not be approached with abstract ideas first. This is to make it not empirical but speculative. We believe the time has gone by for this sort of thing.

State of New York. Eighth Annual Report of the Education Department, for the School Year Ending July 31, 1911. Albany, 1912. 1138 p.

This report, besides the usual statistics, contains an account which will be interesting to many, entitled "The Story of the Erection of

the Education Building." This is "the only building erected by any state or foreign country for the exclusive use of its educational activities," and we are told that the whole scheme from its inception to its completion was without the least public scandal and within the cost originally set apart for its erection. The mural paintings which are to adorn the great staircase and the rotunda are to have for their title "The Aspiration of Man for Intellectual Enlightenment and the Results of Its Attainment." There are thirty-two panels with some seventeen hundred and thirty square feet to be decorated. Fifteen of these spaces may contain developed compositions of several figures, while four will permit the use of only one, so that the others must be treated with decorative ornament. The total cubic space within the building is some eleven million feet, while that within the Capitol across the way is some fourteen million. The contract for the entire work was let July, 1908, for a little over three million dollars and work was begun a few days later. By the contract it should have been done January 1, 1911, and had it been ready the collections of the Education Department would have escaped serious injury by the fire that destroyed the west half of the Capitol in March, 1911. Almost nothing was done in the winters before 1911-1912 and there were many conflicts between the architects and builders. A law provides that it shall always be occupied exclusively by the Educational Department, including the University, the State Museum, the State Library, together with the other work of the Commissioner and Regents. At the writing of this report the building was not yet finished and occupied.

Art museums and schools; four lectures delivered at the Metropolitan Museum of Art, by STOCKTON AXSON, KENYON COX, G. STANLEY HALL and OLIVER S. TONKS. New York, Charles Scribner's Sons, 1913. 144 p.

The object of these lectures, given in the spring of 1912 at the Metropolitan Art Museum in New York, was to show teachers in the various departments of school work how the museum collections might be used by them in connection with the teaching of their subjects. Mr. Axson shows the relation between the art museum and the teaching of English, Mr. Cox shows how teachers of art may use it, Mr. Hall how teachers of history, and Mr. Tonks how teachers of classics may make use of its collections.

Bibliography of child study for the years 1910-1911. Compiled by Clark University Library, Worcester, Mass. United States Bureau of Education, Bulletin, 1912, No. 26. Whole No. 498. 90 p.

For many years, Dr. Louis N. Wilson has printed a comprehensive and discriminating bibliography of child study that has proven invaluable to all interested in it and has done much to advance the cause. The work was first printed in THE PEDAGOGICAL SEMINARY, but the literature has constantly grown in extent, as has also the interest and demand for bibliographical work. Accordingly, the Bureau of Education recently undertook to print this bibliography and to give it a wider circulation. This annual report comprises 90 pages and nearly 2,000 titles.

The secularization of American education, by S. W. BROWN. New York, Teachers College Contribution to Education, 1912, No. 49. 160 p.

This interesting theme is well treated, starting with the religious aim of education and its operations with orphans, inmates of reform,

industrial and penal institutions, the old ecclesiastical control, state support of schools owned and controlled by the church, association of religion and education in the public mind, laws prohibiting religious training and the establishment of departments of theology, laws forbidding sectarian text-books, the establishment of religious tests and the appropriation of public funds to schools under ecclesiastical control, constitutional provisions concerning the aim of education and those forbidding sectarian instruction, religious tests, state and supreme court decisions favoring religious ideals of education and those favoring secular ideals.

Rivista di Filosofia, Neo-scolastica, pubblicata per cura di un gruppo di studiosi diretta dal dott. AGOSTINO GEMELLI. Anno IV. N-5, 20 Ottobre 1912.

The present number contains the following articles, The gnoseological doctrine of St. Thomas in the actual moment of philosophic consciousness, by D. Lanna: Psychology and pathology, by A. Gemelli: God in the philosophy of St. Bonaventura, by F. Palhorüs: The philosophy of Benedetto Croce, by E. Chiochetti: The modern philosophy of thought according to O. Külpe, by A. Gemelli: Benedetto Crose and the presuppositions of the gnoseology by Gian Battitta Vico, by Be.: The ancient scholasticism according to a new scholastic, by B. Nardi: The idealism of the Marburg School, by Fr. Olgiate: Professor G. Gentile and the Italian Thomism from 1850 to 1900, by A. Masnovo.

Why women are so, by MARY ROBERTS COOLIDGE. New York, Henry Holt & Co., 1912. 371 p.

This book is good reading by an author who has evidently given great attention to the present and historic aspects of the subject, who writes in a vivacious way through all her sixteen chapters, divided into four sections, viz., domestic traditions, the effects upon women, some exceptions, and from femininity to womanhood.

Elementary biology, plant, animal, human, by JAMES EDWARD PEABODY and ARTHUR ELLSWORTH HUNT. New York, Macmillan Co., 1913. 229 p.

This is an interesting and excellent text, with many, although we wish there had been more, illustrations, which is well calculated to bring this subject within the interests of daily life and human sympathies instead of making it abstract, academic and ultra-scientific for the beginner.

Addresses and papers, by ANDREW S. DRAPER. Albany, New York State Education Department, 1912. 266 p.

We have here some twenty different addresses and papers. Some of them were for special occasions, others apparently written more in a recreative mood, covering quite a variety of topics, mostly however connected with the administrative aspects of education.

Carlisle primer, by KITTIE ROSE CARLISLE. Illustrated by Adèle Laure Brunet. Houston, Texas, Rein & Sons Co., 1912. 118 p.

The author premises that the greater part of the child's first reading is learning to read and not reading to learn. To make this

learning to read interesting and easy is the main object of this book. The writer also assumes that the chief interest of the child on entering school is in himself and in those things with which he comes in natural contact in everyday life, his school, home, food, clothes and other children; whatever relates to his own experience and environment will claim his attention and the things most closely connected with child life have been selected for the subjects of the lessons. The simplest words in the child's natural vocabulary too have been chosen. This seems a sound idea but it seems to be only in part carried out, unless the child is a country child and familiar with the animals, birds, etc., of the country. The preface is by way of suggestion that the Mother Goose rhymes should be read as a whole and memorized. Some things can be dramatized (a good new idea). It is well, too, to confine for the most part the words in the primer to the vocabulary of the child but to do this is a scientific matter and involves a specific method, of which there is no trace in this book. Nor is much attention paid to the recent psychological studies of the forms of letters, although it is a merit that the importance of this subject is at least seen.

Mental fatigue, by TSURU ARAI. Teachers College, Columbia University Contributions to Education, No. 54. New York City, Teachers College, 1912. 115 p.

After an introduction and historical sketch the author formulates her problems as follows, four in number, showing the influence of mental work upon physiological processes, on the feeling of fatigue and on efficiency. Her conclusions are interesting but not of the utmost value.

A text-book in the history of modern elementary education, with emphasis on school practice in relation to social conditions, by SAMUEL CHESTER PARKER. Boston, Ginn, 1912. 505 p.

The principles followed here are intensive treatment of a limited field, emphasis on a relatively few selected movements, institutions or individuals in this field, and third, discussion of the chosen topics in such a concrete way as to help the student to appreciate the reality of historical development. The author begins with the vernacular in the middle ages, then discusses elementary schools on a religious basis, the transition to a secular basis from Comenius. In the twelfth chapter he comes down to the development of American secular school systems. Several chapters are given to Pestalozzi and a good deal of space to Herbart and Froebelians, with a few sentences or pages about a few living men. It is greatly to be wished that there were more of the latter. Indeed there is nothing contemporary or anywhere near it in the book except what is said about contemporary Froebelians. Most of the material is old and has been worked over and over again. Perhaps it might be said that the author's *Bearbeitung* is as good as anybody's in English within its space, and we do not recall any that has quite so many illustrations of ye olden days.

History of Plymouth Plantation, 1620-1647, by WILLIAM BRADFORD. Massachusetts Historical Society, 1912. 2 v.

This is a really monumental work. It is not only elegant but in excellent taste and abounds in illustrations of many kinds. It is a great credit to the Massachusetts Historical Society.

The conservation of the child; a manual of clinical psychology presenting the examination and treatment of backward children, by ARTHUR HOLMES. Philadelphia, Lippincott, 1912. 345 p.

After an historical sketch the writer treats the constitution of the clinic and its function psychologically and in the field, operations, classification of clinic cases, and modes of classifying both them and moral deviates, and finally sociological relations of the clinic.

Stuttering and lisping, by E. W. SCRIPTURE. New York, Macmillan, 1912. 251 p.

The author has made himself one of our very best experts. Particularly interesting is his treatment of lisping. The book abounds with illustrations, curves, etc., which really bring together the best that is known upon the subject, and the work concludes with detailed characterization of modes of treatment.

A study of mental fatigue in relation to the daily school program, by W. H. HECK, Lynchburg, Va., J. P. Bell Co., 1913. 28 p.

The Beacon primer, by JAMES H. FASSETT. With illustrations by G. A. Harker. Boston, Ginn & Co., 1912. 120 p.

Cyr's new primer, by ELLEN M. CYR. With illustrations by Ruth Mary Hallock and Alice Beach Winter. Boston, Ginn & Co., 1912. 121 p.

Current Educational topics. I. *The duty of the State in the medical inspection of schools,* by F. B. DRESSLAR. II. *Health problems in education,* by THOMAS D. WOOD. III. *Sanitation in rural communities,* by CHARLES E. NORTH. Washington, Gov't. Printing Office, 1912. U. S. Bureau of Education, Bulletin, 1912, No. 24, Whole No. 496. 25 p.

Public and private high schools. Prepared by the Statistical Division of the Bureau of Education. Washington, Gov't. Printing Office, 1912. 375 p. Bulletin, No. 22, Whole No. 494.

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Social progress in contemporary Europe, by FREDERIC AUSTIN OGG. Chautauqua, N. Y., Chautauqua Press, 1912. 368 p.

The spirit of French letters, by MABELL S. C. SMITH. Chautauqua, N. Y., Chautauqua Press, 1912. 374 p.

COMMUNICATION

Apropos of the allusion to Norbert Wiener in our last issue (December, 1912, page 463), we are glad, in accordance with the wish of Norbert Wiener and his father, who took exception to Miss Dolbear's statements, to print the following letters supplied by them.

HARVARD UNIVERSITY
THE GRADUATE SCHOOL OF ARTS AND SCIENCES
24 UNIVERSITY HALL, CAMBRIDGE, MASSACHUSETTS

12 *February*, 1913.

DEAR PROFESSOR WIENER:

In response to your request for a statement of the record of your son Norbert Wiener in the Graduate School of Arts and Sciences of Harvard University I beg to state that he entered the Graduate School of Arts and Sciences in September, 1909, and that he has pursued graduate studies here since that time with the exception of the year 1910-11, which he spent at Cornell University. His record in courses for the years 1909-10 and 1911-12 is as follows:

1909-10		1911-12	
Physics C	B	Philosophy 5a[1]	A
Botany 2[1]	B	" 8	A
Zoölogy 3	B	" 20c	B
" 4[1]	C	" 20e[1]	A
" 11[2]	A	" 22[2]	B
		" 14a[2]	A

Mr. Wiener holds this year a University Scholarship, and has been accepted as a candidate for the degree of Doctor of Philosophy in June, 1913.

Sincerely yours,
(Signed) CHARLES H. HASKINS.

HARVARD UNIVERSITY
THE GRADUATE SCHOOL OF ARTS AND SCIENCES
24 UNIVERSITY HALL, CAMBRIDGE, MASSACHUSETTS

18 *February*, 1913.

DEAR PROFESSOR WIENER:

The record of your son, Norbert Wiener, as contained in my letter of 12 February should be supplemented by the fact that he received the degree of Master of Arts from Harvard University in June, 1912. I may add, also, that as a candidate for the doctorate in the Division of Philosophy Mr. Wiener has successfully passed the preliminary examination required of candidates for the degree in that Division.

Very truly yours,
(Signed) CHARLES H. HASKINS.

TUFTS COLLEGE
DEPARTMENT OF ARTS AND SCIENCES
OFFICE OF THE DEAN
TUFTS COLLEGE, MASSACHUSETTS, *February* 13, 1913.

Mr. Norbert Wiener was admitted to the A. B. Course at Tufts College in September, 1906. On date of June 25, 1906, the Principal

of the Ayer High School wrote as follows to William R. Shipman, who was then Dean of this institution. "I consider his educational training as thorough and perhaps broader than that of the average man entering college, but in many ways he is a boy of eleven. If you can consider his age in some ways (not in educational standards) I am sure he will get along all right."

Dean Shipman accepted the boy, and the problems which his age presented to the College were satisfactorily adjusted by having his family move to the vicinity of the College so that he could live at home during his college course. He received fifteen Carnegie units in entrance credits, and pursued a college course for three years at Tufts College, receiving the degree of A. B. in June 1909. This degree was awarded "cum laude," and he received honorable mention in Mathematics.

His course while at Tufts was as follows:

	Semester Hours
Latin	12
Greek	24
French	6
German	12
English	6
Philosophy	18
Economics	6
History	6
Mathematics	18
Physics	6
Chemistry	9
Biology	6
Total	129

He attained the following grades:

A in 51 semester hours
B in 69 semester hours
C in 9 semester hours

His major department was Philosophy, although he did a great deal of work in Mathematics.

The instructors at Tufts College found him better than the average student in classroom work. In the Department of Chemistry the first subject which he pursued was Chemistry 10, which ordinarily requires three subjects in the department as prerequisites. The fact that he obtained A in this subject shows that he was capable of doing the work without having formally studied the usual prerequisites. The only criticism which the Tufts College faculty has ever made against the boy was the fact that he was immature physically. There seems to have been no question concerning his mental development.

(Signed) FRANK G. WREN,
Dean.

NOTES

MUTUAL ASSISTANCE SOCIETY OF THE MOSCOW TEACHERS' INSTITUTE.

Report of the 17th year, Sept. 1, 1911 to Sept. 1, 1912 (in Russian).

On September 15, 1911, the Committee for the Study of Children's Drawings met (for the second time) in Teachers' Hall. Mr. N. A. Rybnikov reported on the collection of children's drawings in Teachers'

Hall. They were collected according to a definite program so as to show the creative capacity of children according to sex, age, social condition, and also to show the improvement in quality with age. The collection consists of thirty thousand drawings, chiefly from country schools, with a very few from city schools. The Pedagogical Museum of Teachers' Hall takes also into consideration the collections existing elsewhere, such as those at Munich, Leipzig, Geneva, Antwerp, Budapest, and a few other cities. Particular attention has been given to the Geneva collection due to the initiative of Professor Claparède, whose program served as a model for that of Teachers' Hall. Messrs. Katsarov and Ivanov gave information about the new improvements in the Geneva collection, such as the question of what subjects the children select for their drawings, their interests, the sphere of their representations, etc. Mr. Rybnikov noticed a relation between general intellectual capacity and the ability to draw. Unintelligent children very seldom draw well. A child's drawing has to be considered as a particular kind of intellectual work, the level of which depends on the intellectual development of the child. A child's drawing is a particular kind of speech which indicates its psychic level. Mr. R. M. Solovier remarked that too much attention has been paid to collecting and too little to the systematic study of the individual child's creative capacity. The desirability of comparing the results obtained here with those of other collectors was set forth.

A report on the state of the library of the Mutual Assistance Society was presented.

Teachers' Hall was finished in September, 1911, and was opened on December 30, 1911. Lodgings (including hot water and tea) are furnished for teachers at the rate of 50 kopecks (twenty-five cents) a day.

PEDOLOGICAL PROGRESS IN HUNGARY.

The Commission for Pedological Surveys of the Hungarian Child Study Association, at a meeting held on January 12, of last year, under the Presidency of Prof. Nogrady, decided to include the maternal schools in its scheme of inquiry. The teachers will be supplied with questionnaires suitable for the children who frequent these schools.

The Commission plans to outline more definitely the pedological domain which it proposes to cover. The following plans have been adopted:

a.) The statistical investigations of the interests of Children will be continued although on different lines. The first question will be: "Who are the great persons of history you like best? Why?" This investigation will begin with the children of the fourth primary grade.

b.) Investigation of Infantile Memories. "What is the earliest event in your life that you recollect?"

c.) Investigation of Imagination. "How is the Ocean?" "Write a story about some occurrence in the mountains."

d.) The effect of fables on children. "Do you like fable stories? Which one do you prefer?" The older children will be asked: "Have you felt the effect of fables on your spirits? On your actions?"

e.) The investigation of the esthetic taste in children will be continued.

f.) Children's passion for collecting things. The following questions have been proposed: "What do you like to collect? When did you begin to make collections? When did you cease? What do you do with collected things?"

V. T.